MACHINE ROOM
GENERAL LABORER
GUIDELINES

This Document contains trade secret information. PM v. ABC

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COMMUNICATIONS

Communication plays a very important part in decreasing variability in our process. Therefore, it affects the quality of our process in a positive way. One should always keep a line of communications open between the person that affects his/her job (the supplier), and the person that his/her actions affects (the customer).

If there is a problem during your shift, the Area Supervisor must be made aware of it so that he/she may bring it under control, or contact the proper person to handle it. It is essential that you inform the person that is relieving you of any problems which occurred during or at the end of your shift that may affect his/her job.

Shutdowns and start-ups require constant and precise communications because there is an increase of variability through-out the process. Any activity which is not scheduled or planned will delay the time allotted for stabilizing the system, and affect the quality of our product.

4/001.RPL/1

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MACHINE ROOM GENERAL LABORER GUIDELINES

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MACHINE ROOM SAFETY RULES

- Safety glasses must be worn in all posted areas and when:

  a. Switching pumps
  b. Cleaning below eye level
  c. Handling/breaking down hogsheads
  d. Transporting chemicals (forklift or hand)
  e. Changing doctor blades (also wear cotton gloves under special doctor blade gloves).
  f. Sweeping out Tunnel Dryer
  g. Opening Tunnel Dryer doors while fans are running
  h. Handling acid, bleach or other chemicals (also wear face shield, apron, rubber gloves, and boots per procedures)
  i. Using high pressure pump (also wear face shield).
  j. Making up prep.

- Goggles must be worn when:

  a. Cleaning with Texo-foamer
  b. Breaking lines
  c. Operating a forklift through air curtains
  d. Blowing down with compressed air
  e. Cleaning above eye level

- Ear protection must be in good condition and worn in all posted areas:

- Leather gloves must be in good condition and worn when:

  a. Handling hogsheads, mats, tops
  b. Pulling out wet felts/changing felts
  c. Clearing plugs
  d. Using tools
  e. Breaking lines
  f. Switching pumps
  g. Turning valves
  h. Cleaning out Tunnel Dryer and Yankee heat boxes
  i. Changing propane cylinders.

- Rubber gloves must be in good condition when:

  a. Making up preps
  b. Using detergents
  c. Handling drums (including rinsing)
  d. Handling corrosive chemicals
  e. Cleaning inside tanks
  f. Changing concentrator screens
  g. Handling wet stock or liquor.

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- Arm bands are require when:

  a. Handling hogsheads
  b. Stripping hogsheads
  c. Removing hogsheads from feeder
  d. Stacking/banding mats and tops
  e. Changing doctor blades (wear special doctor blade gloves).

- Face shields must be worn when:

  a. Changing propane gas cylinders.

- Follow the Confined Space Procedures at all times (no exceptions).

- Follow the Lockout Procedure at all times (no exceptions).

- Do not do the following:

  a. Put hands into moving machinery
  b. Spray water on any motor or switch (lockout first, then use damp cloth for cleaning).
  c. Use small pieces of electrical equipment without ground fault interrupter.
  d. Walk on conveyors unless locked out.
  e. Stand on apron/incline of reject feeder
  f. Open stock or liquor lines which have not been bled off and valved off properly.
  g. Enter a vessel which has not been secured or air tested.
  h. Stand on or hang over guard rails.
  i. Use compressed air for cleaning clothing or parts of the body.
  j. Wash off top of Yankee hood or north/south walkway without locking out overhead crane
  k. Use air hoses for blowing down which are not properly equipped with "long-john" wands.
  l. Remove broke from can dryer without xxx with rings on both ends.
  m. Hang over rails or climb onto pipes, equipment, etc. without safety belts
  n. Remove/install cast iron sewer grating without sewer hook
  o. Stand in Broke Buggy to remove broke
  p. Leave a forklift running or without setting hand brake
  q. Throw any objects
  r. Run in plant
  s. Transport hogsheads stacked over two high.

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- All hazards must be clearly marked with permanent or temporary signs including:

  a. Wet or slippery floors
  b. Chemicals in use
  c. Grating out of place
  d. Steam leaks.

- Supervisors must be notified immediately of the following:

  a. Unsafe conditions or acts
  b. Lifts or hoists which are not functioning properly
  c. Injuries of all types
  d. Spills of all types
  e. Near misses
  f. Procedures which cannot be followed for any reason
  g. Safety rules which cannot be followed for any reason
  h. Tasks which cannot be done safely.

- Housekeeping rules must be followed including:

  a. Cleaning up spills immediately
  b. Squeegee away standing water
  c. Roll up hoses when not in use
  d. Pick up loose bands, wires and pins
  e. Cleaning up broke.

- In Machine Room, be aware of the following:

  a. Two (2) people are <u>required</u> when working in the mezzanine and cleaning Yankee hood screens.
  b. The first can section must be stopped when changing doctor blades
  c. Forklift operators must drive safely and blow horn at all intersections (crossing yellow lines), but pedestrians should watch but for then at all times.
  d. Tickler refiners have "open" motors and must never be sprayed with water (serious electrical shock can occur)
  e. A minimum twenty minute cool-down period must be allowed before entering the Tunnel Dryer (follow lockout procedures).

Note: These rules apply to <u>all</u> personnel in this area. Failure to comply will result in disciplinary action.

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No. 102

PHILIP MORRIS U.S.A. PARK 500 LOSS PREVENTION POLICY AND PROCEDURE INSTRUCTION	PPI NO: Section No. VII	PAGE. 1 of 5 Pages
	ISSUE DATE 4/18/89	SUPERSEDES 11/1/88
	APPLICABLE TO: Park 500	
	UPDATE RESPONSIBILTY. Loss Prevention Department	

SUBJECT.
SAFETY TAG AND LOCK-OUT PROCEDURE

I. Purpose

The safety tag and lock-out procedure is designed to reduce the potential for injury occurring when a person working on or around equipment, piping or other items can be exposed to accident or injury due to start-up of equipment, opening of valves, or energizing of electrical main breaker. Failure to comply with safety tag and lock-out procedure will result in disciplinary action up to and including discharge.

II. Procedures

Locks will be available and keyed for each individual employee in the following groups: Electrical/Instrument, Mechanical, Production, Environmental, Power House and Lubrication, except Area Supervisors who will have keyed alike locks. Additional locks for locking out equipment are available from the Stockroom.

A. Employees assigned to a job subjecting them to possible accidents as described above, must first notify the Area Supervisor, who will in turn notify the operator of the equipment. It will then be the responsibility of the Area Supervisor to ensure that the necessary items are shut down, turned off, and secured in a safe manner with an Area Supervisor's lock and tag.

B. Lock-out tags are available from the Stockroom. The Area Supervisor and person(s) doing the work must print name and date on tag and firmly secure tag to the lock-out scissors on the appropriate electrical breaker, equipment or valve. In addition, the handle of the electrical breaker is to be locked in the "OFF" position and valves locked in the appropriate position by the Area Supervisor and person(s) performing the work. Electrical breaker, for purposes of this procedure, is defined as the MCC pull switch or field switches which are approved and labeled for lock-out. See tags in Appendix B.

C. All items must be inspected and checked by the Area Supervisor as well as personnel doing the work, to see that the appropriate electrical breaker, control, or valve was selected. The Area Supervisor's lock must always be the "first on and last off".

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1. Electrically operated equipment (pumps, agitators, refiners, etc.) other than paper machine drives - The electrical breaker must be disengaged and locked and tagged in the "OFF" position. After the lock-out is complete, the "START" push button must be depressed by the Area Supervisor and the personnel doing the work, as a "CHECK" that the correct electrical breaker has been disengaged.

2. Electrical equipment (transformers, starters, motors, wiring, etc.) - The breaker of the electrical mechanism must be disengaged and locked and tagged in the "OFF" position. If no disconnect exists the fuse(s) must be pulled to disconnect the source of power. A voltage test must be made to ensure that the circuit is de-energized. All appropriate tags must be affixed to the fusebox.

3. Air, steam, or hydraulic operated equipment - The header valve and any other valves must be positioned to isolate, then secured, tagged, and locked, and the line drained and/or vented whenever appropriate. All valves used within the plant have specific items used to lock them out. If you are unfamiliar with these items, contact the Area Supervisor.

4. Piping - The line or header valves must be properly positioned, secured, tagged, and locked, and the line vented and/or drained.

5. Paper machine drives - The procedure for the use of lock boxes must be followed.

   a) The Area Production Supervisor calls for E/I assistance to lock out the requested Machine Drive.

   b) Upon the arrival of the E/I, the Area Production Supervisor removes the lock box associated with the particular equipment to be taken out of service. The Supervisor gives the individually keyed lock and tag from the lock box to the E/I in order that he may apply it to the power disconnect or breaker located inside the Machine Drive cabinet.

   c) The E/I applies the lock and tag to the power disconnect or breaker and gives the key to the lock back to the Area Production Supervisor.

   d) The Area Production Supervisor places the key inside the lock box, and at this time places his multi-gang lock-out device along with his Production Supervisors' lock and tag to the lock box.

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e) At this time, all personnel who have the need to lock the equipment out would apply their individual locks and tags to the lock box.

f) When work has been completed all locks and tags are to be removed with the Area Supervisors' being last. The key will be given to the E/I, and the drive lock removed.

6. Lock box usage (other than paper machine drives) - Lock boxes may be used in any of the applications listed above whenever multiple locks are required to secure equipment for performance of a task.

a) The Area Supervisor, in the presence of those who will perform the work, will lock and tag all appropriate pieces of equipment with an individually keyed lock and lock-out tag (Appendix B).

b) Each key used in "a" above will be placed in a lock box, and secured with the Area Supervisors' lock and tag.

c) Each employee performing work will subsequently place his lock and tag on the lock box.

d) Upon completion of the task all employees will remove their individual locks and tags from the lock box.

e) The Area Supervisor will remove his lock and tag from the lock box, then remove locks and tags from all locked out equipment.

7. Plug in electrical equipment - Any equipment which plugs into a receptacle for its power source must be secured as follows:

a) Turn off equipment and remove plug

b) Secure by placing a lock-out tag (Appendix B) on the plug

c) Ensure that the plug is in full view while working on the piece of equipment.

D. Each employee working on multiple groups of equipment must separately lock and tag each appropriate item, or secure keys of locked and tagged equpment in a lock box by placing his lock and tag on the box.

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E. The Area Supervisor must be notified when the job is completed. The Area Supervisor's locks and tags must be removed after all other locks and tags of the person(s) doing the work are removed.

F. No one may use lock-out tags for operational purposes, i.e., to prevent change in valve setting, etc. When it is necessary to lock out a piece of equipment, operators and General Laborers will be given a lock by the Area Supervisor to lock out and tag the equipment they are working on, and Section II.B would apply.

G. An individually keyed employee's lock and tag is to be removed only by the employee identified on the tag. In the event an employee removes a lock or tag other than his own, that employee will be subject to disciplinary action, unless authorized by Supervision to do so under the Emergency Lock Removal Procedure (See Section III). In cases where work will be continued by the next shift, the relief person will lock and tag the appropriate equipment or system and test before commencing work. The Area Supervisor's lock and tag shall remain on the equipment for the duration of the job and be removed by the Area Supervisor present at the completion of the job.

H. When repair work by Maintenance will involve 72 hours downtime or more and work will not be continuous, the appropriate Maintenance Supervisor will replace the Maintenance employee lock and tag with his lock and tag while the equipment is disabled and work is not being done on the equipment. Employee's locks and tags will be placed back on the equipment when work resumes. Area Supervisor's lock and tag will remain on the equipment throughout the entire job.

I. Additional protection shall be prescribed by Supervision when they deem it necessary.

III. Special Considerations

A. Energized Operations - Maintenance Functions

Certain Maintenance functions such as troubleshooting, inspection and adjustment cannot be performed with the equipment or system locked out and tagged. These tasks, when done under energized conditions, must be performed by qualified personnel using established procedures and the proper tools, equipment, and personal protective gear to perform the task safely.

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B. Emergency Lock Removal Procedure

1. If an employee leaves a lock on a piece of equipment, valve, or switch box, the following procedures will be followed:

   a) The employee and the Area Supervisor who locked it out will be called by a member of Supervision in their respective departments to find the reason the lock was left.

   b) The Area Supervisor and a member of Supervision from the department(s) of the employee(s) whose lock is being removed will make a complete check of the equipment, valve, etc. If everything is in order and the "Emergency Lock and Tag Removal Form" has been completed (See Appendix A), the lock can be removed by appropriate means.

   c) The lock and tag that was removed will be returned to Security at "A" Gate to be turned over to the appropriate Superintendent/Group Supervisor along with a copy of the Emergency Lock and Tag Removal Form.

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EPI NO: Section No. VII	PAGE: Appendix A
ISSUE DATE: 4/18/89	SUPERSEDES: 11/1/88

EMERGENCY LOCK AND TAG REMOVAL FORM

Directions: All information below shall be completed before lock is removed.

I. Lock Removal Data

EMPLOYEE REMOVING LOCK: _____ DATE: _____

SOCIAL SECURITY NO. _____ TIME: _____

DEPARTMENT _____

SPECIFIC AREA (Location and equipment number where work is being performed):

_____

LOCK SERIAL NUMBER: _____

II. Lock Removal Checklist

Contact employee and Supervisor. ☐

Ensure employees are clear of the equipment/process. ☐

Ensure electrical/mechanical operations, equipment, or processes are now safe to operate. ☐

Supervisor will inspect area before restart of equipment. ☐

III. Signatures to be obtained before removal of Lock:

_____ _____

Group Supervisor (If applicable) Area Supervisor
Date: _____ Date: _____

_____

*Responsible Department Supervisor
Date: _____

* Responsible Department is the Department of the employee whose lock is being removed.

IV. Please return completed form to Loss Prevention
Copy: Area Group Supervisor/Superintendent
Employee's Group Supervisor/Superintendent

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APPENDIX B

DO NOT OPERATE

WORKING ON MACHINERY

Signed_____

_____

Do Not Remove this lock/tag!
Unauthorized Removal of this lock/tag Is a Violation of Company Rules

CARLTON INDUSTRIES INC. 409-242-5055 LA GRANGE, TX

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Subject

No. 103

Machine Room Evacuation Routes

Key Items:

- Check evacuation routes posted in the area.
- Do not utilize the freight elevator as a transportation device during an evacuation.
- Know the designated meeting area outside the plant building.
- **Time permitting turn off equipment.**
- **Evacuation Routes**

Line I Machine Room 2nd Level

Primary Route: Exit down nearest stairwell on the south corner to outside.

Secondary Route: Exit down center stairwell on the south wall to corridor to admin. building and to outside through east side door.

Assembly Area: East of managers parking lot.

Line II Machine Room 2nd Level

Primary Route: Exit down stairwell on northeast corner to outside.

Assembly Area: East of Managers Parking Lot.

Line I&II Machine Room 1st Level Evacuation

Primary Route: Exit through nearest door to outside.

Secondary Route: Exit through second nearest door to outside.

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Assembly Area: East of Managers Parking Lot.

Line III Machine Room 2nd Level

Primary Route: Proceed to exit through southeast door to outside.

Secondary Route: Proceed through southeast door to outside.

Assembly Area: North Lawn

Line III Machine Room 1st Level

Primary Route: Proceed to nearest north door to outside.

Secondary Route: Proceed to nearest south or southeast door to outside.

Assembly Area: North Lawn

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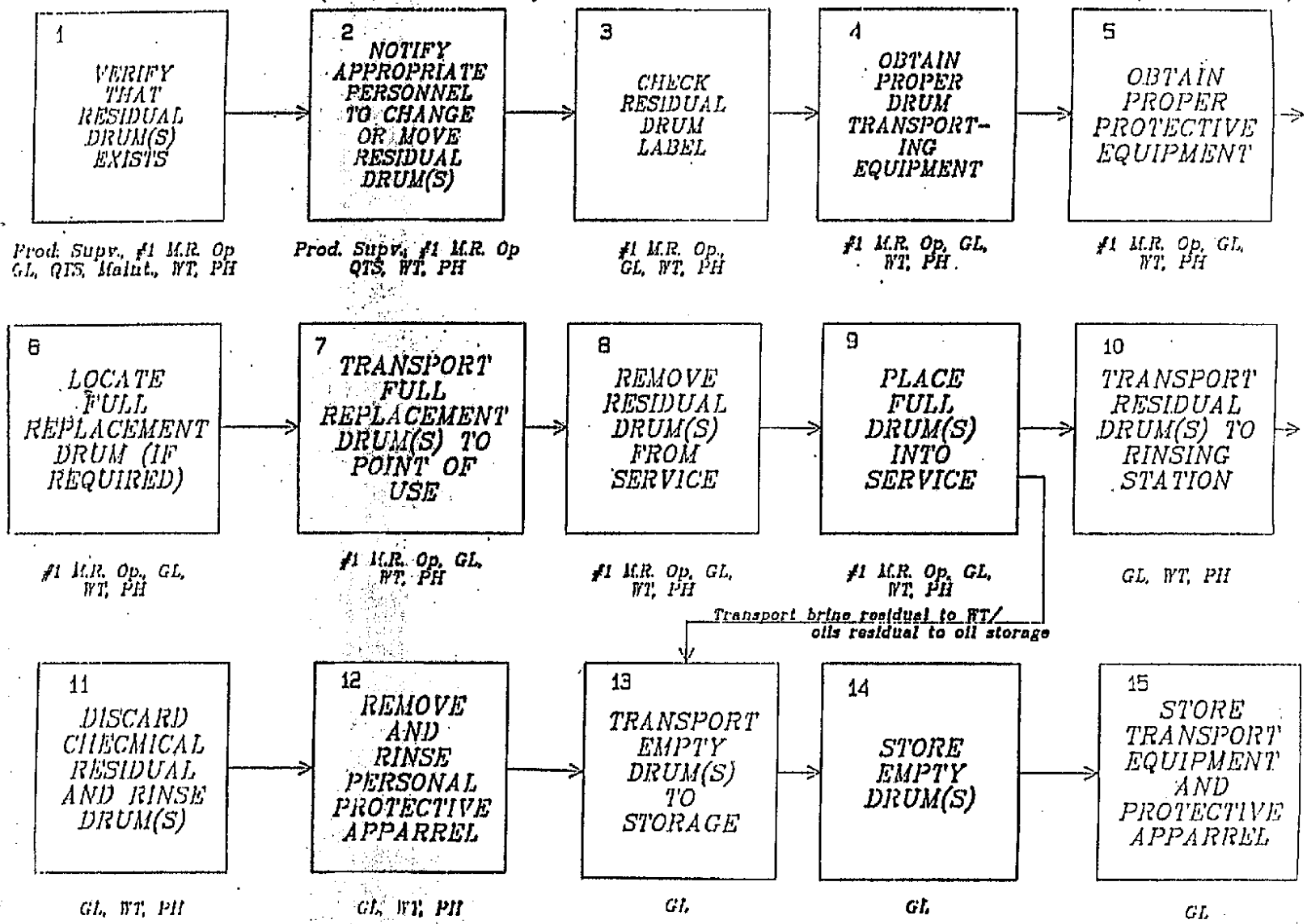
EMPTY DRUM (RESIDUAL) HANDLING AND STORAGE (EMPTY)



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EMPTY DRUM (RESIDUAL) HANDLING AND STORAGE (EMPTY)

Block 1: Verify that residual drums(s) exists.

A. Visual inspection by:
   1. Production Supervisor: Cooling tower chemicals, bleach, Paraben.
   2. All Operators: bleach.
   3. #1 Machine Room Operator: PG/Paraben, test humectants, CF.
   4. Line III Blending Attendant: Bleach and Paraben
   5. General Laborers: Bleach, Cooling Tower chemicals, CF, PG/Paraben
   6. QTS: Cooling tower chemicals - primary accountability
   7. Maintenance: HVAC chemicals, oils
   8. Power House: Acids, caustics
   9. Waste Treatment: Acids, caustics, polymers

   (With exception of Supervisors, the above chemicals will be handled by the appropriate personnel as indicated).

B. Drum level must not exceed one inch--otherwise, contents must be used before changing or moving.

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tah/empty

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Block 2: Notify appropriate personnel to change or move residual drum(s).

A. Production Supervisor: Notifies General Laborer to change or move Production Area drum(s).

B. #1 Machine Room Operator: Notifies General Laborer to assist in changing or moving Production Prep Room drum(s).

C. QTS: Notifies Production Supervisor of need to change or move drum(s).

Block 3: Check residual drums(s) label. Verify chemical name and note all safety percautions. If additional information is needed, reference MSDS and consult Area Supervisor.

A. Production area General Laborer reads label of drum(s) to be changed or moved in the Production area.

B. #1 Machine Room Operator reads label of drum(s) to be changed or moved in the Production Prep Rooms.

C. All Operators and Line III Blending Attendants read label of drum(s) which they will change or move.

D. If label is missing or defaced/not legible, notify the Area Supervisor who informs ERT Chief and L. B. Mayes or J. J. Petchul for disposition instructions. Supervisor sets drum(s) aside and tags DO NOT USE OR MOVE.

bsh/block 2&3

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Block 4: Obtain proper drum transporting equipment.

A. If one drum is being transported, use:
   1. Fork truck with drum lift or
   2. Drum hand truck

B. If more than one drum is being transported at the same time, use:
   1. Fork truck and pallet or
   2. Electric pallet jack and pallet or
   3. Manual pallet jack and pallet

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Block 5: Obtain proper protective apparel.

A. Three levels of protective apparel:

1. Level A – maximum protection – Tyvek suit, splash proof goggles, face shield, rubber gloves, rubber boots
2. Level B – moderate protection – splash proof goggles, face shield, rubber gloves, rubber apron
3. Level C – minimum protection – face shield and rubber gloves

B. Three classes of hazardous chemicals stored in drums:

1. Class 1 – most hazardous when used:

Chemical Name	Where Used
Betz 35 A	Waste Treatment
Zinc Chloride	Waste Treatment
Sulfuric Acid 50%	Production Cooling Towers
All Felt Detergents	Production
Hydrogen Peroxide	Production Cooling Tower Pits
Sodium Hydroxide	Waste Treatment and Production
Betz DE-1231	Power House
Pride/Wax Rid	Power House
Hydrochloric Acid	Power House
Betz Resin Cleaner KI-2	Power House
Caustic 50%	Production Cooling Towers
Slimicides	Production Cooling Towers

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2. Class 2: Moderate hazards

Chemical Name	Where Used
Bleach/Sodium Hypochlorite	Production, Power House
Cooling Tower Chemicals	Production
ChemTreat - CL-2111	↓
CL-216	
CL-4108	
CL-1412	
CL-1422	
CL-1433	
CL-2141	
CL-4400	
CL-1436	
C-31	
Betz-DE-1231	
445	
Betz Ferrosperse	Power House
Betz Liquimine Series III	↓
Calgon QBL-2	
Calgon Burolock 1110	
Calgon NL90	
Betz Cor-Trol 778	
Betz Neutrameen NA-9	
Betz Chelant Cl-2	
Betz Corrogen	

dah/block 5 (cont)

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Minimum Hazards

Chemical Name	Where Used
PG/Paraben	Production
Cooked Flavor	Production
Brine	Production
Glycerine	Production
Betz Cooling Tower Defoamer	Production
Chemtreat CI-450	Production
Polymers:	
Allied 308P	Waste Treatment
Allied Coagulant C2020	Waste Treatment
Allied A210 Flocculant	Waste Treatment
Allied C320 Flocculant	Waste Treatment
Betz 1154 L	Waste Treatment
American Cym Magnifloc 1596C	Waste Treatment
Betz Magni-form 176	Power House

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C. When handling these chemicals in drums, use the following guidelines:
   1. Use Level A protection handling Class 1 chemicals
   2. Use Level B protection handling Class 2 chemicals
   3. Use Level C protection handling Class 3 chemicals

D. When transporting these chemicals in drums, use the following guidelines:
   1. With a fork truck – no protection required; safety glasses recommended.
   2. With pallet jacks – use Level B protection for Class 1 and Class 2 chemicals and use Level C protection for Class 3 chemicals.
   3. With hand trucks – use same level protection required when handling the chemicals (that is, use Level A when transporting Class 1 and so on).

E. Ensure apparel is in good state of repair. If defective, discard.

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dsh/block 5 [illegible]

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Block 6: Locate full replacement drum(s) if required

A. Go to designated storage area.

B. Verify drum(s) label for content - if no label exists or is defaced/not legible, notify the Area Supervisor who informs L. B. Mayes or J. J.Petchul for instructions.

C. If unable to locate replacement, notify Supervisor.

Block 7: Transport full replacement drum to point of use.

A. Wear designated protective apparel - see Block 5.

B. Use designated transport equipment - see Block 4.

C. Balance load on pallet/ensure weight is evenly distributed.

D. Band drums when transporting four at one time.

Block 8: Remove residual drum(s) from service.

A. Wear designated protective apparel - see Block 5.

B. Disconnect pumping mechanism, tubes, etc. at pumping station.

C. Insert all bung caps and hand tighten. All bung holes must be plugged with caps before moving drum(s).

D. Roll/Slide residual drum(s) away from the point of use.

E. NOTE: If it is known or anticipated that Block 10 cannot be completed by the same person performing Block 8, i.e. shift change, a "waste" label must be placed on residual drum. Apply label beside DOT hazard warning label.

dah/block 8, 7/83

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Block 9: Place full drum into service.

A. Wear designated protective apparel - see Block 5.
B. Roll/Move full drum to point of use.
C. Remove bung caps and place on top of drum.
   1. Use proper wrench only for bung caps - do not damage caps.
   2. Remove bung seals with pliers.
   NOTE: Before removing bung caps, ensure drum is in exact position desired for hook-up (point of use). If caps are removed and it is then determined drum(s) must be repositioned for hook-up, bung caps must be reinserted and tightened with wrench.
D. Hook up drum(s) as required/when needed.

Block 10: Transport residual drum(s) to rinsing station (all except oils and brine).

A. Wear designated protective apparel for transport - see Block 5.
B. Use designated transport equipment - see Block 4.
C. All oil residuals, including hydraulic fluid, are transported by Maintenance personnel. All full oil drums, including hydraulic fluid, are stored in stock room and are pulled and handled by Maintenance personnel and are recycled to supplier.
D. All brine/ethylene glychol residuals are transported to Waste Treatment for disposition.

dsh/block 9&10

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Block 11: Discard chemical residue, rinse drum(s), and apply "empty" label.

A. Wear designated protective apparel – see Block 5.
B. Remove one bung cap.
C. Dump contents and triple rinse drum:
   1. Place drum on side.
   2. Turn drum upside down and allow residual to drain to process sewer.
   3. Place drum on side and insert drum rinsing nozzle approximately halfway into drum.
   4. Triple rinse drum and ensure discharge flow is clear on third rinse. Turn upside down and drain to process sewer.
   5. Hose off bottom and side of drum (while upside down).
   6. Turn drum upright, rinse, insert and hand tighten bung caps. Hose off top of drum.
   7. Hose down chemical residue on floor to process sewer.
   8. Hose down hand truck (if applicable).
D. Apply "empty" label directly over DOT hazard warning label.

Block 12: Remove and rinse personal protective apparel.

A. Remove and rinse personal protective apparel pieces thoroughly. Remove and rinse rubber gloves last.
B. Check apparel to ensure each piece is in good repair. If it is not, rinse and discard.

dsh/block 11&12

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Block 13: Transport empty drum(s) to storage.

A. Rubber gloves only are required protective apparel.

B. Use designated transport equipment – see Block 4.

Block 14: Store empty drum(s).

A. Use rubber gloves.

B. Store on a pallet, four drums to a pallet, stacked neatly in designated row, upside down.

C. See diagram for proper storage location of empty drum(s). Note that all dented , punctured drums are stored separately.

Block 15: Store transport equipment and protective apparel.

A. Transport: designated storage.

B. Protective equipment: designated storage

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No. 105

Subject

Location and hazards involved with high voltage motors in the Machine Room.

Location

Refiner motors-2nd Floor Machine Room 2300 volts Yankee wet/dry end supply fan motors - Mezzanine 2300 volts.

Hazards

All Machine Room electrical motors post a hazard if safety precautions are not taken when cleaning the motors or the area around the motors. Refer to job safety analysis cleaning motors.

Refiner motors-extreme caution has to be exercised when cleaning the area around the refiner motor it is important not to splash water on the foundation that the refiner motor is mounted on. The reason for going into detail on this subject is because we have had water splashed into the motor before the results was a near miss. All motors in the Machine room should be treated with a equal amount of caution when cleaning the motor and the area around the motor.

6/002.RPL/3.1

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE:_____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION: Cleaning Motors

JOB LOCATION: Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Cleaning Motors	Electrical shock, burns, possible death	1. Before cleaning any motors, the equipment must be locked out. 2. Never spray water directly on any motor whether it is locked out or not. 3. Motors may only be cleaned by using a damp cloth to wipe them off. 4. All employees should follow the Lock-Out Procedure when working on any equipment.
	HAND INJURY - Irritation, minor cuts.	1. Wear rubber gloves when using any cleaning solution. 2. When cleaning metal pay attention to any burrs or nicks that could cause injury.
	EYE INJURY - Irritation, burns	1. When using cleaning solution to clean anything over head wear goggles to protect eyes from splashes or drips.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 106

Subject:

Overhead crane Machine Room I, II, III

Safety

In all three Machine Rooms the bridge cranes have a live electrical track at the ceiling level, line I Machine Room track extends the full length of the south wall, Line II Machine Room track extends the full length of the north wall and on Line III Machine Room track extends full length of the south wall. It is the utmost importance to lock out the bridge crane before cleaning at the upper level of the walls to include the stuff box area, top of the Yankee hood and duct work. This will prevent a chance for electrocution.

6/002.RPL/4

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

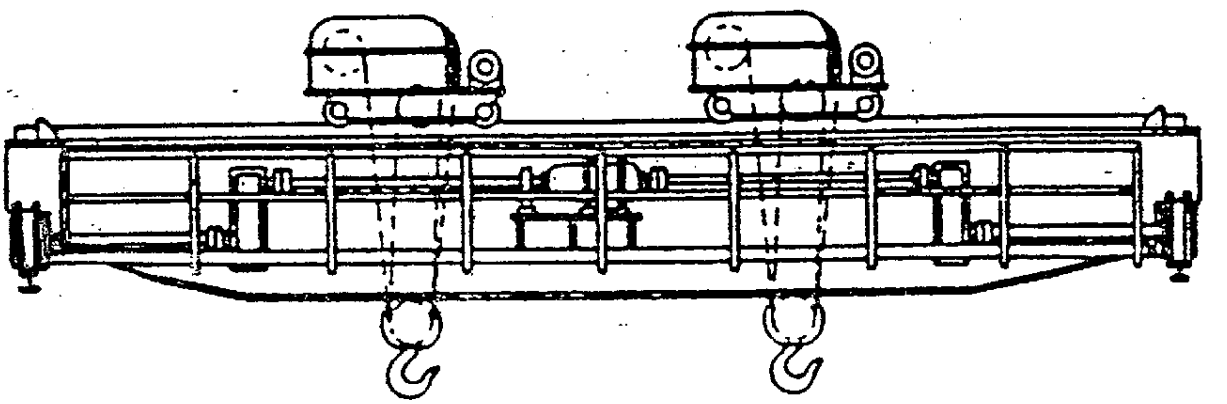

Fig. 3

5-MOTION
DOUBLE TROLLEY

Two equal hoists for handling of long loads at any desired centers.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

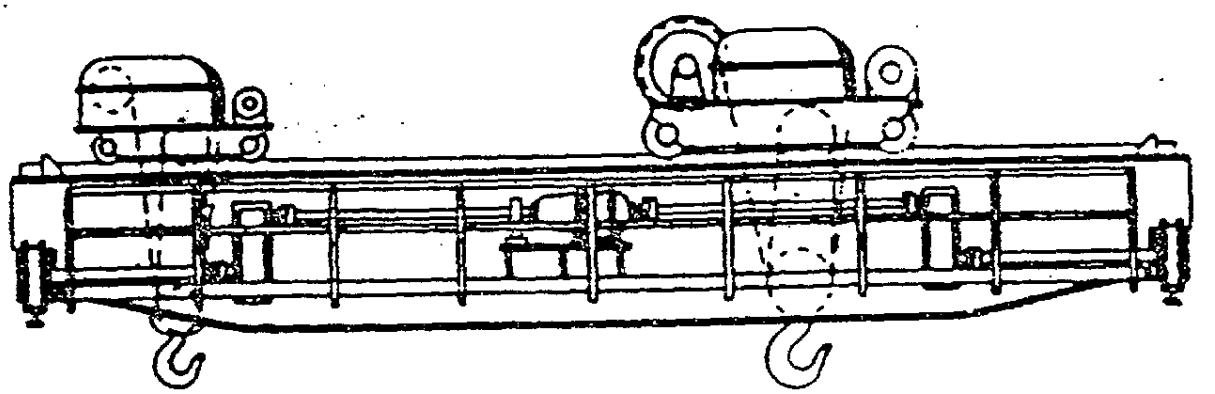

Fig. 5

5-MOTION
DOUBLE TROLLEY
One heavy and one light capacity trolley for heavy single-load or light, long loads.

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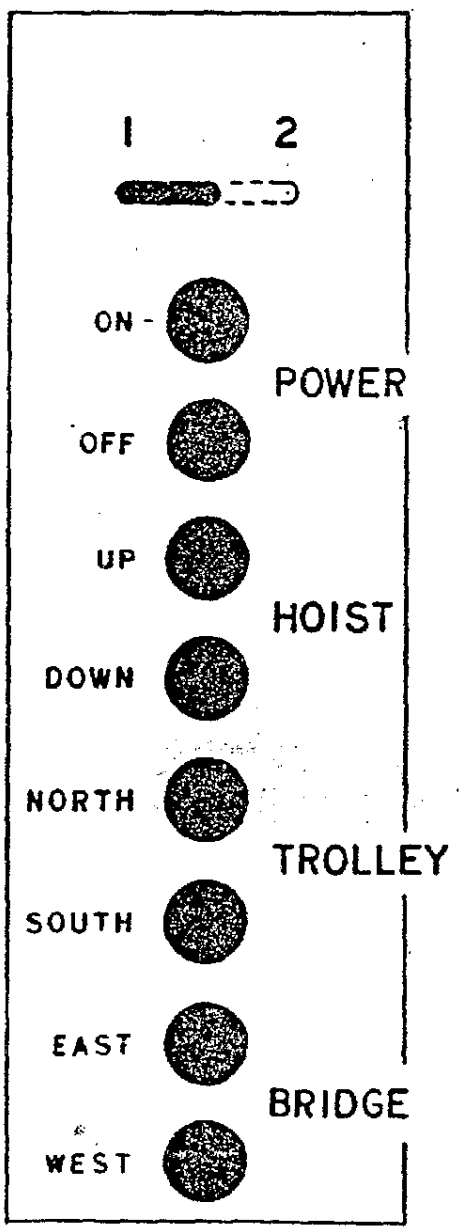
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

PROGRESSIVE & KRANCO CRANES



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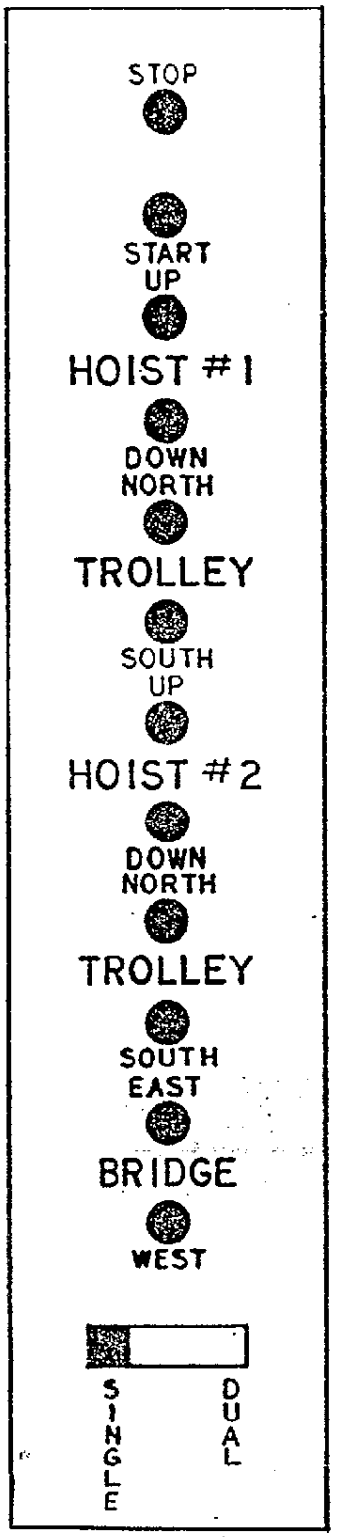
WHITING CRANE



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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

TEXT

I. USING OVERHEAD CRANE

A. THE OVERHEAD CRANE IS A VITAL PART OF THE OPERATION WHEN CHANGING FELT ON THE MACHINE.

B. OPERATOR MUST BE THOROUGHLY FAMILIAR WITH CRANE AND TROLLEY MOVEMENT.

C. ON THESE CRANES, THE BRIDGE MOVEMENT IS EAST AND WEST.
THE TROLLEYS MOVE NORTH AND SOUTH.

D. ON EACH CRANE, THERE ARE TWO TROLLEYS EQUIPPED WITH LOAD LIFTING WIRE ROPE AND LOAD HOOKS.
THESE TROLLEYS AND CAPACITY LOADS ARE NOT ALL THE SAME AND IT IS IMPORTANT THAT THE CAPACITIES OF THE CRANE AND TROLLEYS BEING USED ARE ADHERED TO.

E. IT IS IMPORTANT TO INCLUDE THE WEIGHT OF ALL LIFTING GEAR, SLINGS, CHOKERS, CHAIN FALLS AND LIFTING BEAMS IN THE WEIGHT OF THE LOAD. EVERYTHING BELOW THE HOOK IS CONSIDERED.

F. #1 MACHINE ROOM: THE EAST END CRANE WILL BE NORMALLY USED. THIS IS A WHITING WITH A TOTAL CAPACITY OF 14 TONS.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

UNIT #1 OR NORTH TROLLEY HAS A MAXIMUM CAPACITY OF 14 TONS OR 28,000 LBS.

UNIT #2 OR SOUTH TROLLEY HAS A MAXIMUM CAPACITY OF 8 TONS OR 16,000 LBS.

IN NO INSTANCE SHALL THE TOTAL WEIGHT TO BE LIFTED EXCEED 14 TONS. IN OTHER WORDS, IF BOTH TROLLEYS ARE USED TO MAKE A LIFT, THE TOTAL WEIGHT CANNOT EXCEED 14 TONS AND THE WEIGHT DISTRIBUTION SHALL NOT EXCEED 8 TONS ON THE #2 TROLLEY.

THERE MAY BE OCCASIONS WHEN THE WEST CRANE WILL BE USED ON LINE I.

THIS IS A KRANCO 10 TON CRANE WITH TWO LIFTING UNITS.

UNIT #1 IS THE NORTH TROLLEY AND HAS A RATE CAPACITY OF 5 TONS OR 10,000 LBS.

UNIT #2 IS THE SOUTH TROLLEY AND HAS A RATE CAPACITY OF 5 TONS OR 10,000 LBS.

IN NO INSTANCE SHALL THE TOTAL WEIGHT ON THIS CRANE EXCEED 10 TONS.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

G. #2 MACHINE ROOM

THE EAST END CRANE WILL BE NORMALLY USED THIS IS A KRANCO WITH A TOTAL CAPACITY OF 14 TONS OR 28,000 LBS.

UNIT #1 OR THE SOUTH TROLLEY HAS A MAXIMUM CAPACITY OF 14 TONS OR 28,000 LBS.

NOTE: ON THIS CRANE, THE SOUTH TROLLEY IS THE 14 TON LOAD CAPACITY AS OPPOSED TO LINE 1 WHERE THE NORTH TROLLEY HAS THE 14 CAPACITY.

UNIT #2 OR THE NORTH TROLLEY HAS A MAXIMUM CAPACITY OF 8 TONS OR 16,000 LBS.

IN NO INSTANCE SHALL THE TOTAL WEIGHT TO BE LIFTED EXCEED 14 TONS OR 28,000 LBS.

IF BOTH TROLLEYS ARE USED TO MAKE A LIFT. THE TOTAL WEIGHT ON #2 TROLLEY SHALL NOT EXCEED 8 TONS OR 16,000 LBS.

THERE MAY BE OCCASIONS WHEN THE WEST CRANE WILL BE USED ON LINE #2.

THIS IS A KRANCO 10 TON CRANE WITH 2 LIFTING UNITS.

UNIT #1, THE SOUTH TROLLEY, HAS A RATE CAPACITY OF 5 TONS OR 10,000 LBS.

UNIT #2, THE NORTH TROLLEY HAS A RATED CAPACITY OF 5 TONS OR 10,000 LBS.

IN NO INSTANCE SHALL THE TOTAL WEIGHT ON THIS CRANE EXCEED 10 TONS.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

H. #3 MACHINE ROOM

THE EAST END CRANE WILL NORMALLY BE USED. THIS IS A PROGRESSIVE WITH TOTAL CAPACITY OF 15 TONS OR 30,000 LBS.

BOTH THE NORTH AND SOUTH TROLLEYS ON THIS CRANE HAVE A MAXIMUM CAPACITY OF 15 TONS OR 30,000 LBS. AGAIN, THE TOTAL WEIGHT THAT CAN BE LIFTED BY THIS CRANE USING BOTH TROLLEYS IS 15 TONS AND THIS WEIGHT MUST NOT BE EXCEEDED.

THE WEST END CRANE IS ALSO A PROGRESSIVE AND IT HAS THE SAME CAPACITY RATINGS AS THE EAST END CRANE.

II. CRANE CONTROL

A. ALL CRANE AND HOOK MOTION IS CONTROLLED FROM THE PENDANT CONTROL BOX.

B. THERE ARE DIFFERENCES IN THE CONFIGURATION OF THE BUTTONS AND SWITCHES PENDANT CONTROL BOXES ON THE KRANCOS, WHITING AND PROGRESSIVE CRANES.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

THE OPERATOR SHOULD OBSERVE THE CONTROLS & MARKINGS ON THE STATION HE OR SHE IS USING & BE SURE TO UNDERSTAND EACH FUNCTION.

C. BEFORE STARTING TO USE THE CRANE, THE OPERATOR SHOULD TEST ALL FUNCTIONS INCLUDING THE HOIST UPPER LIMIT SWITCH TO MAKE SURE THEY ARE PERFORMING PROPERLY.

D. THE CRANE OPERATOR AND PERSON DIRECTING THE BRIDGE, TROLLEY & HOOK MOVEMENT MUST ALWAYS BE WITHIN A DISTANCE THAT THEY CAN TALK AND BE EASILY HEARD.

ONLY ONE PERSON SHALL GIVE SIGNALS OR COMMANDS TO THE CRANE OPERATOR.

THE OPERATOR SHOULD ALWAYS REPEAT THE COMMANDS SO THAT THERE ARE NO MISUNDERSTANDINGS IN THE GIVEN.

IF ALL DIRECTIONS ARE UNDERSTOOD, THE DIRECTOR SHOULD RESPOND "OK GO".

ALL STOP COMMANDS SHOULD BE EXECUTED IMMEDIATELY BY DOING THIS, THE POTENTIAL FOR AN ACCIDENT OR INCIDENT ARE ELIMINATED.

E. BRIDGE, TROLLEY & HOOK MOVEMENT ON THESE CRANES IS CONSTANT. THE BRIDGE AND TROLLEYS WILL DRIFT A LITTLE AFTER THE BUTTON

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

IS RELEASED UNTIL THE TRAVEL BRAKE ACTIVATES. SLIGHT MOVEMENT OF EITHER TROLLEY IS ACCOMPLISHED BY JOGGING, THAT IS, MOMENTARILY PRESSING AND RELEASING THE BUTTON IN THE REQUIRED DIRECTION.

THE HOOK CONTROL IS MORE POSITIVE AND WILL USUALLY STOP WHEN THE BUTTON IS RELEASED.

F. LIFTING THE LOAD

ONCE THE BRIDGE AND TROLLEY ARE APPROXIMATELY IN POSITION TO MAKE THE LIFT, THE HOOK SHOULD BE LOWERED UNTIL IT IS CLOSE TO THE ATTACHMENT POINT.

CHECK TO SEE THAT THE HOOK IS DIRECTLY OVER THE HOOK-UP POINT.

OVERHEAD CRANES ARE DESIGNED TO PICK VERTICALLY AND THUS, THE HOOK MUST BE DIRECTLY OVER THE PICK-UP POINT. THIS CAN EASILY BE ACCOMPLISHED BY JOGGING THE BRIDGE OR TROLLEY OR BOTH TO LINE UP THE HOOK.

REMEMBER, THERE SHOULD BE NO SIDE PULL ON THE LOAD AS IT CAN CAUSE THE LOAD TO TRY TO CENTER ON THE LIFT RESULTING IN LOAD SWAY AND/OR DROP WHICH CAN RESULT IN AN ACCIDENT.

G. CHECK THE LOAD HOOK SAFETY LATCH TO MAKE SURE IS FUNCTIONING PROPERLY.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

H. WHEN THE LIFTING SLING IS SECURE ON THE LOAD HOOK, JOG UP UNTIL ALL SLACK IS TAKEN OUT AND TENSION IS APPLIED TO THE LOAD AND STOCK.

THEN CHECK FOR: THE HOOK CENTERED ON THE LOAD--NO SIDE PULL.

ON ROLL LIFTS, MAKE SURE THE SLING IS SECURE SO THAT THE LOAD WILL NOT SHIFT.

I. MAKE SURE NO ONE IS DIRECTLY UNDER THE LOAD WHEN LIFTING OR LOWERING.

J. ON ALL EAST END CRANES AT MACHINE FLOOR LEVEL, DO NOT DROP HOOK AND LOAD BLOCK SO THAT THE ROPES BECOME SLACK AS THIS WILL CAUSE BAD SPOOLING ON THE DRUM.

III. SYNTHETIC WEB SLINGS

A. SYNTHETIC WEB SLINGS ARE MADE IN SINGLE DOUBLE THICKNESS.

CAPACITY LOAD CHARTS FOR THESE SLINGS ARE MADE FOR SINGLE THICKNESS AND THE CAPACITY OF DOUBLE THICKNESS IS OBTAINED BY MULTIPLYING THE SINGLE LOAD CAPACITY BY 2.

B. SYNTHETIC WEB SLINGS ARE MADE OF NYLON AND DACRON.

NYLON IS MORE PLYABLE AND STRONGER THAN THE SAME WIDTH DACRON SLING.

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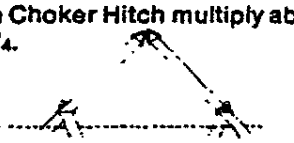
NYLON WEB SLINGS

Web Width (Inches)	MAXIMUM SAFE WORKING LOADS — POUNDS (SAFETY FACTOR = 5) (Eye & Eye, Twisted Eye, Triangle Fittings, Choker Fittings)					
	Single Vertical Hitch	Single Choker Hitch	Single Basket Hitch (Vertical Legs)	2-Leg Bridle Hitch & Single Basket Hitch With Legs Inclined		
				60°	45°	30°
1	1,600	1,200	3,200	2,770	2,260	1,600
2	3,200	2,400	6,400	5,550	4,520	3,200
3	4,800	3,600	9,600	8,300	6,800	4,800
4	6,400	4,800	12,800	11,100	9,050	6,400
5	8,000	6,000	16,000	13,850	11,300	8,000
6	9,600	7,200	19,200	16,600	13,600	9,600
7	11,200	8,400	22,400	19,400	15,800	11,200
8	12,800	9,600	25,600	22,200	18,100	12,800
9	14,400	10,800	28,800	25,000	20,400	14,400
10	16,000	12,000	32,000	27,700	22,600	16,000
11	17,600	13,200	35,200	30,500	24,900	17,600
12	19,200	14,400	38,400	33,300	27,200	19,200

If used with Choker Hitch multiply above values by 3/4.



For Double Basket Hitch multiply above values by 2.

Note: For Safe Working Loads of Endless or Grommet Slings, Multiply Above Values by 2.

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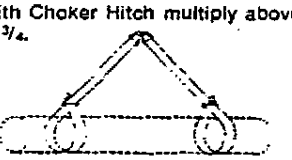
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

TABLE 6.8

DACRON WEB SLINGS (5000 lb/in Material)						
Web Width (inches)	MAXIMUM SAFE WORKING LOADS — POUNDS (SAFETY FACTOR = 5) (Eye & Eye, Twisted Eye, Triangle Fittings, Choker Fittings)					
	Single Vertical Hitch	Single Choker Hitch	Single Basket Hitch (Vertical Legs)	2-Leg Bridle Hitch & Single Basket Hitch With Legs Inclined		
				60°	45°	30°
1	1,000	750	2,000	1,730	1,400	1,000
2	2,000	1,500	4,000	3,460	2,830	2,000
3	3,000	2,250	6,000	5,200	4,250	3,000
4	4,000	3,000	8,000	6,950	5,650	4,000
5	5,000	3,750	10,000	8,660	7,070	5,000
6	6,000	4,500	12,000	10,400	8,500	6,000
7	7,000	5,250	14,000	12,100	9,900	7,000
8	8,000	6,000	16,000	13,850	11,300	8,000
9	9,000	6,750	18,000	15,600	12,700	9,000
10	10,000	7,500	20,000	17,350	14,100	10,000
11	11,000	8,250	22,000	19,100	15,500	11,000
12	12,000	9,000	24,000	20,800	17,000	12,000
				If used with Choker Hitch multiply above values by 3/4.  For Double Basket Hitch multiply above values by 2.		
Note: For Safe Working Loads of Endless or Grommet Slings, Multiply Above Values by 2.						

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

C. THESE CHARTS ARE THE MAXIMUM SAFE VALUES FOR NYLON SLINGS.

D. IF DACRON SLINGS ARE USED, REDUCE THE SAFE LOAD VALUE BY 3/8 OR .375. omit

E. WHEN DOUBLE THICKNESS NYLON SLINGS ARE USED MULTIPLY THE LOAD CHART VALUE BY 2. omit

F. WHEN SLINGS ARE NEW, THERE IS A MANUFACTURER'S STAMPED MAXIMUM LOAD VALUE ON THEM, USUALLY AS FOLLOWS: VERTICAL-CHOKER - BASKET.

HOWEVER, WITH USAGE THESE FIGURES ARE OFTEN NOT READABLE. USE THESE CHARTS IF YOU HAVE ANY DOUBTS AS TO THE MAXIMUM LOAD CAPACITY.

G. INSPECT EACH SLING TO BE USED AND DO NOT USE IF ANY OR ALL OF THE FOLLOWING EXIST:

1. ALL SLING MANUFACTURER'S INSERT A RED THREAD ABOUT 1/4 INCH IN FROM EACH EDGE OF THE SLING. SHOULD THIS RED THREAD BE VISABLE AT ANY POINT ALONG EITHER EDGE OF THE SLING OR IN THE EYES, DISCARD IT.

2. OBSERVE THE BODY OF THE SLING AND IF THERE ARE SEVERE CUTS OR TEARS ANYWHERE ALONG WEBBING INCLUDING THE EYES, DISCARD.

3. IF THERE ARE BURNS, CAUSTIC OR ACID DISFIGURATIONS ANYWHERE ON THE SLING, DISCARD.

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No. 201

Subject

Touring your area at the start of the shift

The Machine Room General Laborer has one of the largest areas of housekeeping in the plant, due to the size of the area it is important to work smart. The initial tour of your area will save you time and will make you more effective in your job. (It's a matter of spotting problems before they turn into major jobs).

Items to check on your initial tour of the Machine Room 1st and 2nd floor.

- Safety Hazards
- Spills
- Feltwash Tank
- Mat/Top Cart/Cart Location
- Broke Needs for the Pulper/Broke Pulper level
- Flavor/Chemicals needs. 10% Paraben/Sorbate Cook Flavor.
- Equipment problems/unusual noises/smoke/etc.
- Feed back on the dry end.
- Check housekeeping on Packing ledge (Line III Machine Room)
- Check Location and charge of the electric pallet jack

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No. 202

Subject

Feltwash Responsibilities/Cleaning Duties

Not all the equipment in the Machine Room can be cleaned on the run due to the product being made on the Machine in open areas and also we do not want to get soap and other contaminants into the product. Because of this, the feltwash period is a critical time to clean the process machine in areas that could not be cleaned while the machine is in operation.

Due to the importance of time utilization it is essential to set up your cleaning equipment before the shutdown of the Machine. So we are operating in a safe and efficient manner.

Cleaning Equipment in question.

- Texo Foamer
- Brushes
- Soap

Areas that need to be cleaned

- Felt section framework inside and outside
- Rolls to include Dr. Blade and trough
- Wire section to include cat walk/shower area
- Can section to include framework, 1st floor.

Key Items on Feltwash

- Do not go up on the Felt section while the soap is being applied to the felt
- When using papermaker hoses watch out for employees in the area and the equipment

6/002.RPL/9

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 203

Title

Making up Ran Tex soap solution for feltwash use.

Why is the Operation Necessary

To clean Wet Felt/Maintain a efficient operation.

When is the Operation Necessary

During periods after the felt has been washed and the felt wash detergent tank is empty.

Safety equipment needed to perform task

- Rubber Gloves
- Safety Glasses
- Apron
- Face Shield } When hooking up line to the Ram Tex Tote Bin

Line I and Line II Steps in Sequence to Perform Task

- Check valving from the tote bin to the pump (insure the lines are hooked up and secure).
- Open tote bin discharge valves (floor level).
- Open supply line valve to the pump (floor level)
- Go to detergent supply control panel.
- Set batch select switch to desired tank Line 1 22-112 or Line II 52-130.

  Press Batch until channel light comes on CH1=L1 CH2=L2

  Press start to pump the soap (automatically set for 5 gallons)

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- Go to the (feltwash detergent tank) and turn on the water supply valve to fill the tank to the mark on the sight glass.
- Turn off the water valve when desired tank level is obtained
- Close the supply-line valve to the pump (floor level)
- Close the discharge valve on tote bin (floor level)
- Log scrape usage (number on the counter) on the clip board at the soap tank.

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No. 204

Subject

Proper way to cut a tail off the Yankee Dryer

Key Item

Inspect Brass tip for Wear/Do not use if tip is not brass

When is the task performed

- Sheet breaks
- Blade change start ups

Steps involved in task

Follow All Machine Room Safety Rules.

- Turn on air shower this will prevent sheet from going into cans. Once sheet has come across the Yankee surface turn down the air on the shower so order to center the base web sheet in the middle of the broke conveyor.
- Pick up the tail cutter spear , and lay the spear on the railing with the brass tip pointing toward the Yankee Dryer.
- Place the spear on the Yankee surface approximately 10" from the edge of the sheet. Excessive pressure is not required. Do not lift the spear off of the Yankee surface while cutting the tail.
- Wait for the No. 1 operator to tell you to proceed with the cut of the tail. Once the No. 1 operator monitored, proceed across the Yankee surface with the spear until the cut is complete. Use a 45° angle when moving the tail cutter spear across the yankee.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

- Stay at the Yankee cat walk until sheet is completely going up tunnel chain. If the sheet breaks, reverse cut back to original starting point and await the No. 1 Operators's instruction.
- Turn off air shower.

2031177271

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE: PROD. 82-87

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION	JOB LOCATION
Proper use of Tail Cutter on Yankee Dryer	Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Placing spear end against Yankee surface	GENERAL INJURY - Torso, head, limbs	1. Keep spear clear of any moving equipment, particularly the can felts. 2. Do not leave the spear lying across the railing before cutting the sheet. 3. Keep the spear pointed down and away from the body at all times. 4. Ensure the spear is placed back on the storage hanger after completion of task. 5. When cutting sheet off Yankee Dryer, keep the spear level against the surface of the Dryer.
	HAND INJURY - Cuts, abrasions	1. Periodically check spear out to see if there are any burrs. They should be ground down upon immediate detection.

2031177272

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 205

SUBJECT: ASSISTING MACHINE ROOM SENIOR OPERATOR IN BROKE MAKE-UP

WHEN IS TASK PERFORMED:

WHEN THE BROKE PULPER IS EMPTY

KEY ITEMS:

- CHECK AREA BUGGIES, USE BUGGIES FIRST IF AVAILABLE FOR BROKE MAKE UP
- IF NO BROKE AVAILABLE CALL PACKING L-I 2184/L-3 2164 INFORM PACKING TRUCK DRIVER BROKE PULPER MATERIAL IS NEEDED
- SENIOR OPERATOR IS RESPONSIBLE FOR CONSISTENCY OF THE PULPER CONTENT AFTER MAKE UP
- BROKE PULPER MAKE UP MAY REQUIRE HOGSHEADS OR CASES TO BE BROKEN DOWN AND STACKED (PICK UP PINS AND STORE AFTER BREAKING DOWN HOGHEADS)
- LINE I MACHINE ROOM CHECK HOGSHEADS AT THE DRY END UNDER REVERSING CONVEYOR 22-503

STEPS INVOLVED:

- PARK BUGGY AT THE BROKE PULPER RAMP AND USE THE BUGGY BRAKE OR STAGE HOGSHEAD AT THE BROKE PULPER
- ASSIST SENIOR OPERATOR FILLING PULPER, SENIOR OPERATOR WILL ADD THE RBW DILUTION, THICK SIZE, AND OPERATE THE PUMP VALVING. SENIOR OPERATOR WILL DECIDE WHEN ADEQUATE AMOUNT OF BROKE HAS BEEN ADDED.

6/002.RPL/17

2031177273

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

PHILIP MORRIS USA

JOB PROCEDURE

JP NO:	PAGE: 1 of 3
ISSUE DATE: 9/12/88	SUPERSEDES:
APPLICABLE TO: Machine Room Senior Operator & G.L.s	
UPDATE RESPONSIBILITY:	

SUBJECT: Broke Make-up/Consistency at Broke Pulper

REQUIRED PERSONAL PROTECTIVE EQUIPMENT: Safety Glasses, Arm Bands, Leather Gloves

REQUIRED SPECIAL TOOLS AND EQUIPMENT: Hammer, notched pry bar, mat cart, head cart, broke buggies

APPROVAL:	APPROVAL:	LOSS PREVENTION APPROVAL:

BASIC JOB PROCEDURE

KEY POINTS

I. Potential Hazards

A. Flying debris can contact eyes.

B. Splinters/lacerations can result from contact with hogshead material.

C. Blisters can result from use of hammer and pry bar.

D. Edges on card board cases can cause lacerations.

E. Possible strains/sprains can result from improper lifting.

F. Serious and/or disabling injury may result from contact with Fork Lift truck.

G. Serious injury and/or death could result from falling into the Broke Pulper.

H. Slips and falls could result from wet and/or uneven working surfaces.

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JP NO:	PAGE: 2 of 3
ISSUE DATE: 9/12/88	SUPERSEDES:

SUBJECT: Broke Make-Up

BASIC JOB PROCEDURE

KEY POINTS

II. Special Considerations

A. The Broke Pulper is a confined space and is not to be entered unless following the confined Space Entry Procedure for the Broke Pulper

B. The majority of our feed back is Broke Pulper hogsheads that have been processed through Packing.

C. This procedure also applies to broke generated in the Machine Room and thick size.

D. Target consistency for broke make-up is 5 percent.

E. The Senior Operator is responsible for consistency.

F. For instructional purposes, this procedure assumes the pulper is empty when job starts.

G. Stock prep is targeted to pull 300 gallons of broke per batch at the rate of 2 batches per hour.

III. Job Steps

1. Ensure broke pump is not running and auto knife valve at pulper discharge is closed.

2. Open RBW make-up line or fresh water make-up line, which ever is appropriate.

3. Fill pulper with RBW or fresh water to level just above pulper agitator.

4. Have fork lift driver/G.L. to set hogshead, case, broke buggies at pulper - which ever is appropriate.

2031177275

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JP NO:	PAGE: 3 of 3
ISSUE DATE: 9/12/88	SUPERSEDES:

SUBJECT: Broke Make-Up

BASIC JOB PROCEDURE

KEY POINTS

III. (continued)

5. In order to achieve desired consistency, we will assume we are feeding back full hogsheads at 900 lbs.

6. Strip hogshead using proper technique and wearing required personal protective equipment.

7. Place mats and heads in mat and head carts.

8. Turn on broke pulper agitator.

9. Cut one full hogshead into the pulper, adding RBW/water to the pulper.

10. Do not exceed a level which rises above the inlet pipe from the size pit.

11. If adding thick size, do not exceed 250 gallons when gauging up to the level designated in Step #10.

12. Open knife gate valve at pulper discharge.

13. Broke is now ready to be pulled by Stock Prep.

14. If making up with broke from buggies, pad heads, loosely packed heads, etc. do not exceed level designated in Step #10 and create consistency to match that which is obtained when using a full hogshead and gauging up to the designated level.

15. As we standardize the make-up with one full hogshead and filling level to pipe from size pit, the judgement required for Step #14 will become easier because we will know what the right consistency looks like.

16. Repeat steps 1 through 15, where applicable.

2031177276

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 206

SUBJECT: TRANSFERRING USED DOCTOR BLADES TO THE MAINTENANCE SHOP FOR REGRINDING

KEY ITEMS:

- SAFETY: THE DOCTOR BLADES ARE RAZOR SHARP AND CAN ONLY BE HANDLED WITH THE SPECIFIED EQUIPMENT LISTED IN THE MACHINE ROOM SAFETY RULES
- WHILE PUSHING THE CART BE AWARE OF PROTRUDING DOCTOR BLADES
- LEATHER GLOVES ARE REQUIRED WHEN TRANSPORTING THE CART
- LOWER THE BRAKE ON THE CART AFTER TRANSPORTING
- TWO EMPLOYEES ARE REQUIRED TO MOVE THE CART

WHEN THE NUMBER OF DOCTOR BLADES REACHES A LOW AMOUNT, THE DR. BLADE CART WILL NEED TO BE TAKEN TO THE MAINTENANCE SHOP SO THE CUT OF THE BLADE CAN BE REWORKED.

THE CART WILL HAVE TO BE TRANSFERRED FROM THE 2ND FLOOR MACHINE ROOM TO THE ELEVATOR. THE CART WILL NEED TO BE PUT IN AT AN ANGLE SO THE ELEVATOR DOOR WILL BE ABLE TO CLOSE. FROM THE ELEVATOR TAKE THE CART TO THE MAINTENANCE SHOP. STAGE THE CART IN THE BLADE GRINDING AREA, DO NOT BLOCK TRAFFIC. A FULL BLADE CART WITH REWORKED BLADES WILL BE LOCATED IN THE SAME AREA, LISTED ON THE BLADE CART WILL BE A DESIGNATED AREA (MACHINE ROOM I & II OR III) IN WHICH THE BLADE CART IS SUPPOSED TO GO. ENSURE YOU TAKE THE CORRECT CART BACK TO THE MACHINE ROOM.

6/002.RPL/16.1

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Subject Cleaning Mezzanine Area

No. 207

The Mezzanine contains vital equipment to keep the Machine Room in operation some of which are: Yankee Wet End/Dry End Supply fans, Yankee scrubber, Tunnel scrubber, Rotary Dry scrubber, and Air Handling Units. It is important to have proper housekeeping in this area.

Key Items

- **Two people are required when working in the Mezzanine area.**
- **If a power outage occurs do not attempt to leave the Mezzanine area (stay put)**
- Be aware of the tight working conditions.
- Be aware of the tripping hazards
- Avoid spaying water on electrical motors, trion unit, electrical panels, lights, and electrical outlets.
- **Roll up water hoses when not in use.**

Notify Supervision Before Starting Job Task

When cleaning the Mezzanine, always work together within sight or calling distance of each other. If for any reason one employee must leave the Mezzanine working area, the other employee must also accompany him/her downstairs. For ease in carrying cleaning equipment up to mezzanine use the Freight elevator - exception Line I south mezzanine. Line III south mezzanine cleaning equipment needed.

- Squeegee
- Bucket/soap

2031177278

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

- Brushes
- Portable trash can

Cleaning Mezzanine area- hose down floors with water hose, area has process drains throughout. Avoid spraying water on motors, Trion units, electrical panels, lights and electrical outlets. Pick up and dispose of any trash in the mezzanine area. Scrub and use soap to clean up spills and grease spots. After completion of cleaning mezzanine notify supervision that the job task is complete.

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No. 208

Subject

Cleaning Yankee Heatbox Wet/Dry End Screens

Yankee hood screens must be cleaned periodically, approximately 3 times a week or when the Yankee system has problems with carry over from the Yankee hoods (hot spots on the Yankee surface, Trim Squirt Problems)

When to clean yankee hoods - feltwashes extensive downtime and blade changes

Key Items

- **Notify supervision before start of job task**
- If the cleaning of the Yankee Wet/Dry end heatbox hood screens cannot be accomplish from outside of the unit, job task will require a lock out.
- Two employees are required when going to the mezzanine area.
- **Insure wet/dry end fans are cut off (communicate with senior operator)**
- **Wear leather gloves and safety glasses during job task.**
- **Latch all wet/dry end access doors open.**
- **Do not come in contact with hot metal (heatbox internals)**
- **Do not beat on screens to remove base web build up.**

Cleaning equipment needed to perform task:

- Long Handle Squeegee

6/002.RPL/13

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

- Shovel
- Trash Can

Cleaning Yankee Hood Screens upon shutdown of the Machine the Senior Operator will turn off the wet/dry end Yankee supply fans. Accompanied by a designate employee go up stairs to the yankee hood heat boxes and open all the access doors, latch the doors open. Using a long handle squeegee gently tap the heatbox screens (the base web will fall onto the floor. Pull the accumulated base web to the access door (using the long handle squeegee.) Shovel up the base web and dispose in a trash can. Close all heatbox doors and lock down latch.

After returning from the mezzanine area, notify senior operator that job task is complete so the wet/dry end fans can be turned back on.

Line III Machine Room

When cleaning base web from the screens and floor, utilize the vacuum cleaner system at the wet/dry end hood heatboxes, this will eliminate the need for a shovel and squeegee. Check the drum level in the vacuum system dump if necessary.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 209

Subject

Storm Sewers (court-yard/roof)

Importance: Willfully/knowingly discharging waste process organics or chemicals in to the storm sewers is a violation of our wastewater discharge permit.

Location of the Storm Sewers

- Roof - Drains are covered with a dome type grating.
- Courtyard - Low level for rain water run off/covered by open grate.

Notification procedure if spill occurs: Notify supervision immediately. Dike spill using Stay Dry absorbent and dike around storm sewer.

Housekeeping: It is essential to keep the court yard, including Line III Packing dumpster area and roof areas clean. If a spill occurs, it is important to clean up the spill, even though the spill does not enter the storm sewer. This also includes dust on the roof and tobacco product in the courtyard. The area needs to be cleaned so that rain doesn't wash waste down the storm sewer.

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No. 210

PROCEDURE FOR STACKING MATS AND TOPS

STACKING AND BANDING MATS:

- MATS MUST BE STACKED ON PALLET FACING UP WITH CLEATS INTERLOCKED. MATS MUST BE ALTERNATED IN ORDER FOR EACH CLEAT TO INTERLOCK WITH PREVIOUS STACKED MAT.
- IT DOESN'T MATTER WHICH HINGE IS WHERE AS LONG AS ALL CLEATS ARE UP AND INTERLOCKED, (SEE ILLUSTRATION ON NEXT PAGE).
- MATS MUST BE TIGHTLY BANDED WITH 3 BANDS, IN STACKS OF 40. BANDS MUST BE PLACED THROUGH PALLET; ONE ON EACH SIDE OF THE PALLET AND THE OTHER AS CLOSE TO THE MIDDLE AS POSSIBLE. THE DESIGN OF THE MAT CART SHOULDN'T PROHIBIT THE SPACING OF THE THREE BANDS.
- A COMPLETED SHIPPING TICKET MUST BE ATTACHED AT THE TIME OF BANDING. INCLUDE DATE, INITIALS , SHIFT, WHO IS SHIPPING AND WHERE IT'S BEING SHIPPED ON THE TICKET.

STACKING AND BANDING TOPS:

- TOPS MUST BE STACKED ON CRISS-CROSS SPACER WITH OAK LINERS (RINGS) ALWAYS FACING UP. TOPS MUST BE TIGHTLY BANDED WITH 2 BANDS, IN STACKS OF 40 AND A COMPLETED SHIPPING TICKET THAT INCLUDES DATE, SHIFT, LINE, INITIALS, WHO IS SHIPPING AND WHERE IT IS BEING SHIPPED.

6/002.RPL/19.1

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Subject: PROCEDURE FOR STACKING MATS AND TOPS

Stacking and Banding Mats

Mats must be stacked on pallet facing up with cleats interlocked. Mats must be alternated in order for each cleat to interlock with previous mat stacked.

It doesn't matter which hinge is where as long as all cleats are up and interlocked. (See illustration on next page.)

Mats must be tightly banded in stacks of 40 with 3 bands. Bands must be placed through pallet; one on each side of the pallet and the other as close to the middle as possible. The design of the mat cart shouldn't prohibit the spacing of the three bands.

A completed shipping ticket must be attached at the time of banding. To include date, initials, shift, who is shipping and where it's being shipped.

Stacking and Banding Tops

Tops must be stacked on criss-cross spacer with oak liners (rings) facing up always. Tops must be tightly banded in stacks of 40 with 2 bands and a completed shipping ticket that includes date, shift, line, initials, who is shipping and where it's being shipped.

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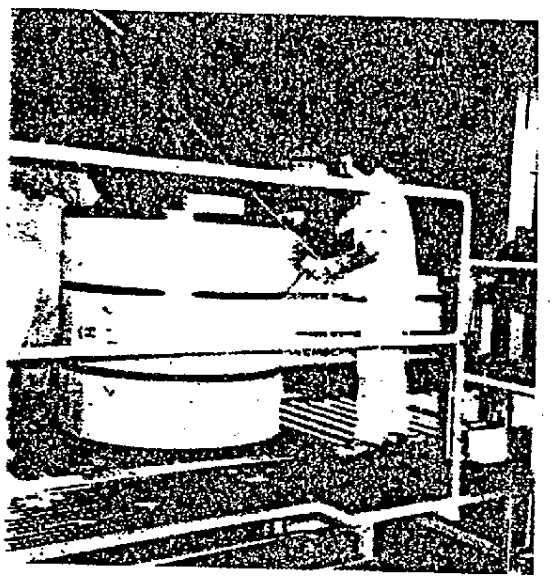
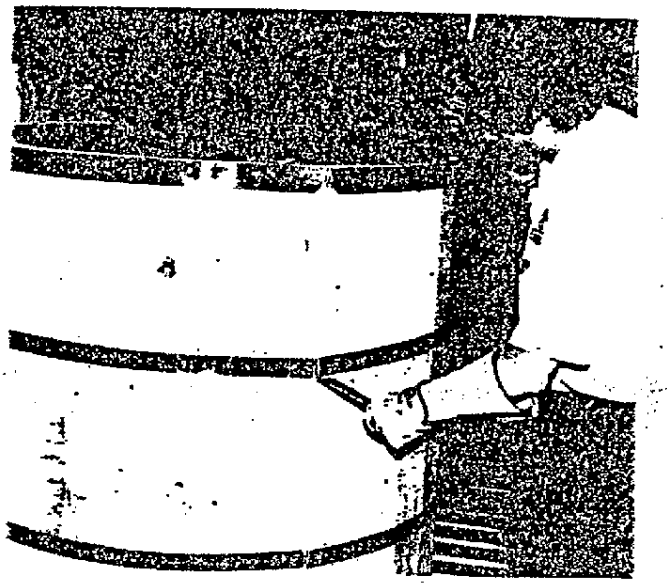
Processing

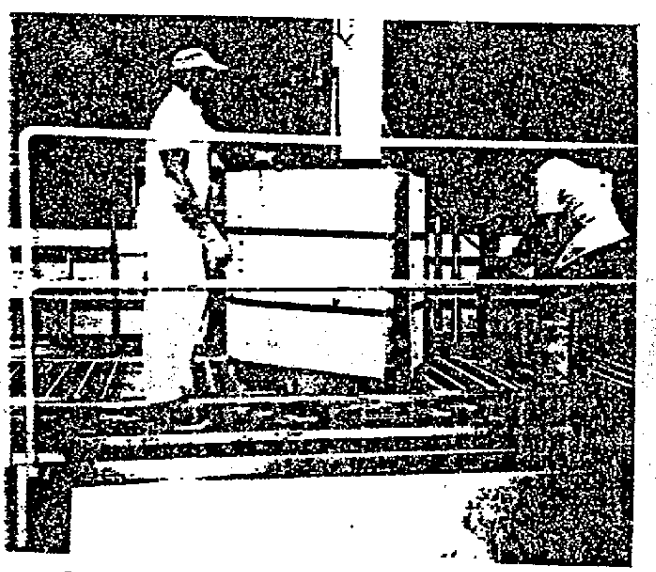
Stripping and Prep



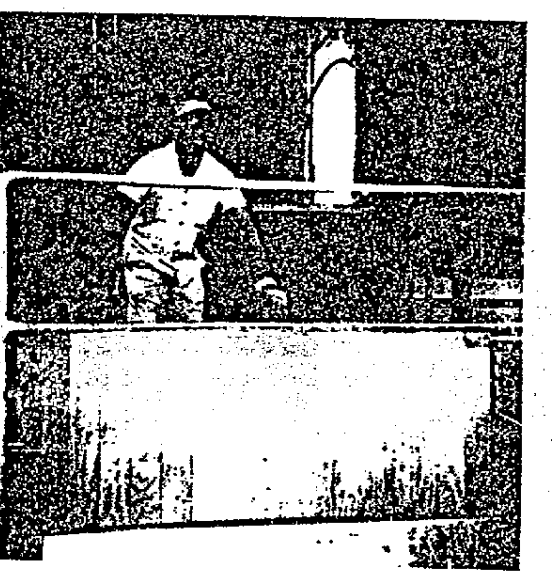
Keep stripping station free of debris. Use caution when stepping in line with automatic conveyor flow.



Follow proper safety procedures and wear proper eye, hand, arm, and foot protection.



Careful handling of mats and heads is required to minimize damage.



Lift mats with the legs, not the back. Prompt return of mats by established procedures minimizes damages and safety hazards.

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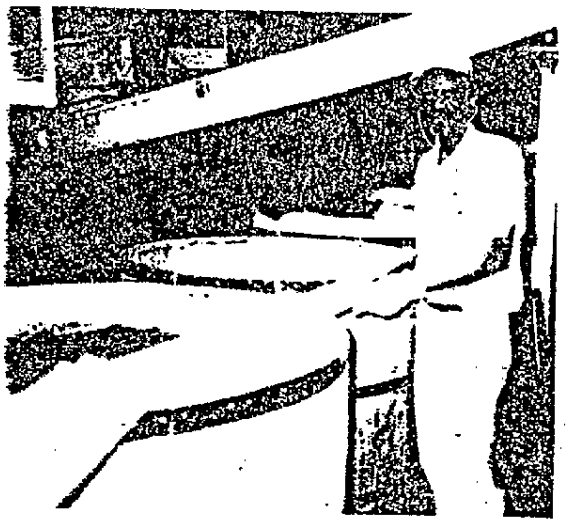
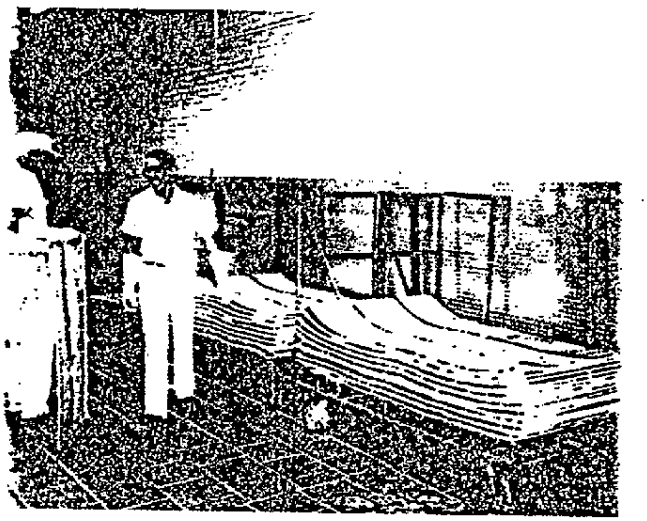
Processing

Stripping and Prep



Operators are to assure that all foreign material is removed from HHDs (Liners, Tyvek, ID Tag w/No., Steel & Plastic Strapping, Clips, and Corner Posts).



Stack mats properly for shipment in accordance with established procedure. Twenty-four mats to a stack. Offset [illegible] location with [illegible] down. [illegible] diamond up. Use metal strapping and dunnage pallet.

Stripping and Prep Concerns

INCORRECT: Do not use a chisel or a flat bar as a hammer. Use the appropriate tool for each job.

INCORRECT: Because of dumper design excessive force is applied to the hogshead end staves and damage results.

2031177286

JOB SAFETY ANALYSIS

PARK 500 CODE: PROD. 82-220

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION	JOB LOCATION
Putting Mats and Tops in Carts	Blending

TASKS	HAZARDS	SAFETY PRECAUTIONS
Putting mats and tops in carts	**Muscle strain from lifting**	**1. Use proper lifting procedure (do not turn from the waist).**
	Cuts and splinters from wood and metal	**1. Wear leather gloves.**
	Foot Injury from dropping mats and tops	**1. Always wear safety shoes.** 2. Keep feet clear when lifting.
	Eye Injury	1. Always wear safety glasses.
	Body Injury	1. Be aware and cautious of lift trucks in the work area.

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No. 211

TASK: REMOVING FULL DRUM FROM PALLET

EQUIPMENT NEEDED:

_ FORKLIFT TRUCK

_ LIFT-O-MATIC TRUCK ATTACHMENT

KEY ITEM:

FOLLOW ALL MACHINE ROOM SAFETY RULES

STEPS INVOLVED:

_ ADJUST FORKS ON THE FORKLIFT SO THEY WILL FIT INTO THE BOTTOM CARRIAGE OF THE LIFT-O-MATIC

_ SLIDE FORKS ALL THE WAY INTO THE LIFT-O-MATIC CARRIAGE

_ INSTALL CARRIAGE CHAIN TO THE BOOM OF THE FORKLIFT TRUCK (THIS WILL PREVENT THE LIFT-O-MATIC FROM SLIDING OFF THE FORKS OF THE FORKLIFT TRUCK).

_ TILT THE FORKS OF THE FORKLIFT TRUCK IN A DOWNWARD POSITION

_ APPROACH THE DESIGNATED DRUM ON THE PALLET WITH THE JAWS OF THE LIFT-O-MATIC DEVICE BELOW THE TOP RIM OF THE DRUM

_ MOVE FORKLIFT TRUCK TO THE DRUM CLOSE ENOUGH SO THAT THE CRADLE MAKES CONTACT WITH THE DRUM

_ SLOWLY LIFT THE LIFT-O-MATIC (CRADLE STILL MAKING CONTACTS WITH THE DRUM)

_ ENSURE BOTH JAWS HAVE MADE A BITE ON THE DRUM'S TOP RIM (MAY REQUIRE OPERATOR TO GET OFF TRUCK). IF BOTH JAWS HAVE NOT HAVE BITTEN THE TOP RIM OF DRUM, REAPPROACH DRUM.

_ TILT FORKS UPWARD, AND REMOVE DRUM FROM PALLET.

_ LOWER DRUM TO THE FLOOR.

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**

_ TO RELEASE JAWS FROM THE RIM OF THE DRUM, TILT FORKS DOWNWARD UNTIL JAWS ARE BELOW RIM OF THE DRUM.

_ BACK AWAY FROM THE DRUM.

AFTER TASK IS COMPLETED, STORE THE LIFT-O-MATIC IN ITS DESIGNATED STORAGE AREA

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

ARTICULATED HEAD OPERATING CHARACTERISTICS
DCM-PTA MODELS

The clamping mechanism assembly, simply referred to as the HEAD or DOUBLE-HEAD or HEADS, is for the DCM-PTA model, unlike any other PTA models in that its mounting to the frame is articulated. This serves two functions for the unit during drum engagement:

(a) It provides for a lateral movement of the heads without changing direction of the unit or truck.

(b) It provides for a movement between the two heads relative to the horizontal plane without, likewise, altering the position of the unit.

An illustration for movement (a) is when tight spaces presents an impossibility of steering the fork truck to practicably center of the unit with the drum (see Fig. 1). In these situations the swiveling heads self-align itself on contact with the drum. In very difficult situations a drum could be off-centered 8" or even more. And, depending on the extent of the truck carriage's forward tilt, the condition of the drum-rim and the driver's familiarity with his equipment's capabilities, it could be maneuvered by tilting carriage forward 3 to 5 degrees and let one of the heads grab the drum. Tilting the carriage back to the upright position and raising the forks so drum bottom barely clears the floor would swing the drum on the cradle centering it with the unit. Then, by lowering to floor and raising back up would bring both heads to grab.

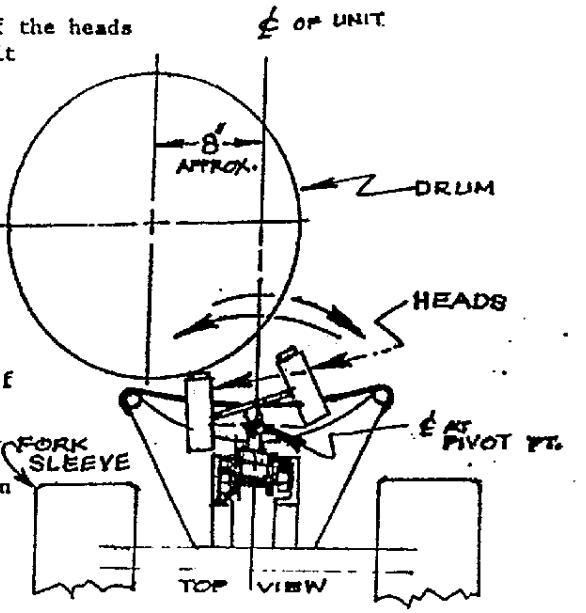

FIG. 1

Movement for (b) as illustrated in Fig. 2 is a swaying motion provided for into the articulation wherein the heads self-align itself to a drum sitting on an inclined floor or uneven surfaces and/or vice-versa the truck standing on one. The heads have a 15° sway, with respect to the horizontal, both ways. But the drum, of course, could be inclined 20° or more and still be handled as in the former situation.

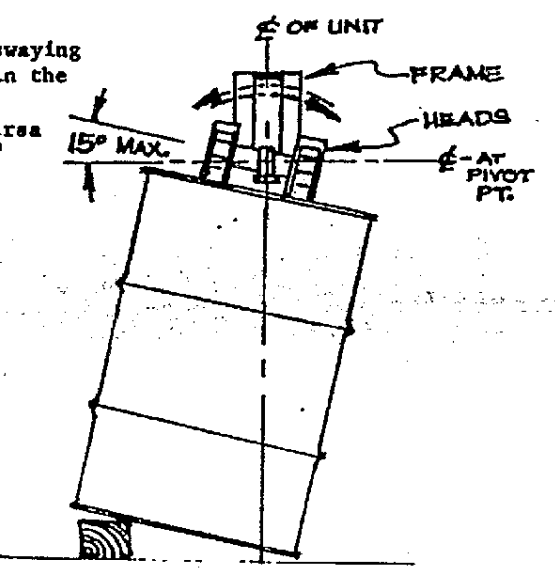

FIG. 2

LIFTOMATIC MATERIAL HANDLING, INC.
2224 Cleveland Street
Evanston, Illinois 60202

(312) 328-6530
(312) 273-2126

2031177290

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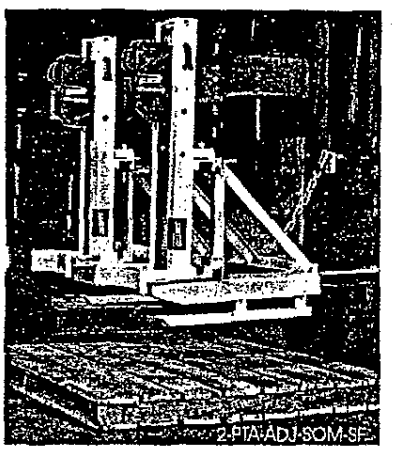
▪Slide-on or carriage mounted models provide a "sure-grip" for most sizes and types of drums.

Whatever your needs, Liftomatic PTA attachments can handle them better. Clamping mechanisms can be adjusted to handle everything from steel drums in a horizontal position to the tallest of fibre drums. Jaws operate perfectly on tight lids, removable lids, steel, fibre, disposable metal, or plastic drums. Liftomatic PTA attachments are mechanical and they're automatic. No hydraulics or power systems are required. And one worker can install them with ease in seconds.

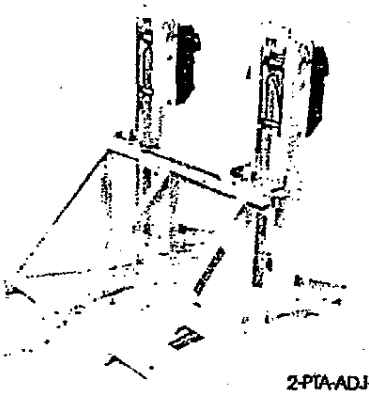
- There's a Liftomatic attachment designed to handle most drums on the market.



2-PTA-ADJ-SOM-SF

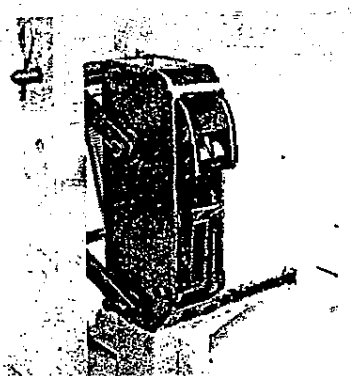
- Any model PTA slide-on mounting
- can be equipped with special stub forks for handling empty pallets.

- Carriage mounted units are available for working within tight aisles or with extended mountings that facilitate pyramiding, stacking or palletizing.



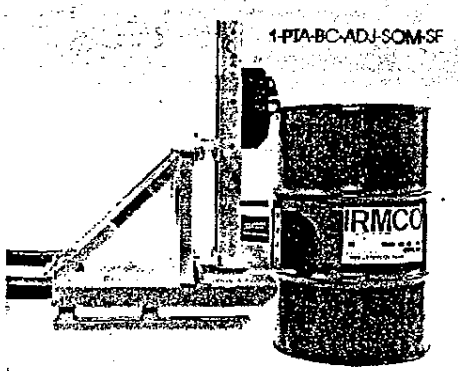
2-PTA-ADJ-SOM

1-CM-PTA



- Positive jaw action insures safe transporting without damage to bead or drum chime.

1-PTA-BC-ADJ-SOM-SF



- Optional belt cradle for PTA units provides extra protection for fragile or finely printed drums. Also available in kit form.

20311 7291

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

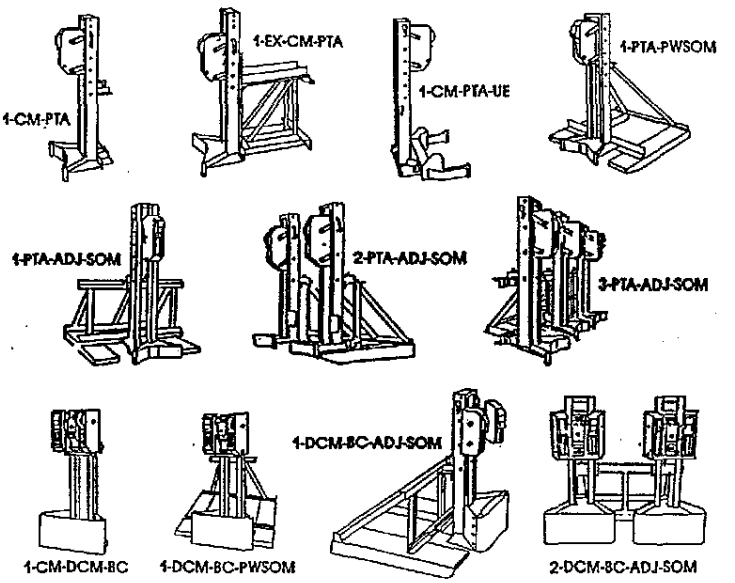
■ Safe, reliable attachments in a wide range of options and models make Liftomatic the only choice for your drum handling needs.

Liftomatic has the capability to help solve your drum handling problems with the widest assortment of mechanical lift truck attachments in the industry.

For the solution to your drum handling problems contact your local Liftomatic distributor. He'll help you plan a better, safer, more economical way to handle your drums.

Should you require a custom designed unit for your particular application, Liftomatic engineers will work with you through your local distributor to come up with a solution. Our 40 years experience and leadership in the industry speaks for itself. Our reputation for quality and reliability, and the life cycle of our products has virtually kept us out of the replacement parts business, and we're proud of it.

To find the Liftomatic drum handling attachment that's right for your application, consult the handy selection chart below. Then contact your local distributor or Liftomatic for complete information and pricing.



MODEL	CAPACITY (lbs)	WEIGHT (lbs)	DIMENSIONS (in)	DRUMS HANDLED	DESCRIPTION
1-CM-PTA	2,000	75	37 X 10 X 14	1	Single head carriage mounted unit.
1-EX-CM-PTA	2,000	125	37 X 28 X 14	1	Single head extended carriage mount.
1-CM-PTA-UE	2,000	100	37 X 26 X 25	1	Single head carriage mount with up-ender cradle.
1-PTA-PWSOM	2,000	140	37 X 38 X 30	1	Single head, permanent weld slide-on mount.
1-PTA-ADJ-SOM	2,000	210	37 X 38 X 30	1	Single head, adjustable slide-on mount.
2-PTA-ADJ-SOM	4,000	285	37 X 38 X 30	1, 2	Dual head, adjustable slide-on mounts.
3-PTA-ADJ-SOM	6,000	360	37 X 38 X 30	1, 2, 3	Triple head, wide carriage adjustable slide-on mounts.
1-CM-DCM-BC	2,000	115	37 X 16 X 30	1	Single head, double clamp carriage mount with belt cradle.
1-DCM-BC-PWSOM	2,000	180	37 X 44 X 30	1	Single head, double clamp, permanent weld slide-on mount with belt cradle.
1-DCM-BC-ADJ-SOM	2,000	250	37 X 44 X 30	1	Single head, double clamp, adjustable slide-on mount, with belt cradle.
2-DCM-BC-ADJ-SOM	4,000	370	37 X 44 X 30	1, 2	Dual head, double clamp, adjustable slide-on mount with belt cradle.

Nomenclature:

PTA Power Truck Attachment
CM Carriage Mount—attaches to ITA Class II lift truck carriage. (1, 2, or 3 CM-PTA's can be used to handle 1, 2, or 3 drums at one time.)
EX-CM Extended Carriage Mount—extends 18" from carriage to allow palletizing of drums.
UE Up-ender Cradle—allows raising drums from horizontal to vertical position, and then transporting.
PWSOM Permanent Weld Slide-on Mount—may only be used fork mounted.
ADJSOM Adjustable Slide-on Mount—accepts 1, 2, or 3 CM-PTA's or 1, or 2 CM-DCM-BC's. Normally used fork mounted, but can be used as carriage mount.
DCM Double Clamping Mechanism—picks up each drum at two places on chime or bead. Eliminates single point stress.
BC Belt Cradle—provides cushioned support for sidewall of drum. Prevents scratching and marking. Can be ordered on any PTA/DCM model.

Options:

SRJ Spark Resistant Jaws—used in red labeled areas. Must be used with belt cradle. Available on any PTA/DCM model.
SF Stub Forks—attach to any PWSOM or ADJ-SOM for handling empty pallets.
BC Belt Cradle Kit—for adaptation to existing PTA/DCM attachments.

Distributed by:

LIFTOMATIC MATERIAL HANDLING, INC.
2224 Cleveland Street, Evanston, Illinois 60202
312/328-6530 312/273-2126

10M/586 Printed in U.S.A.

2031177292

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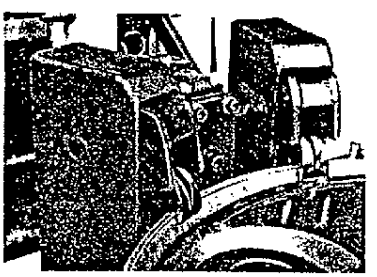
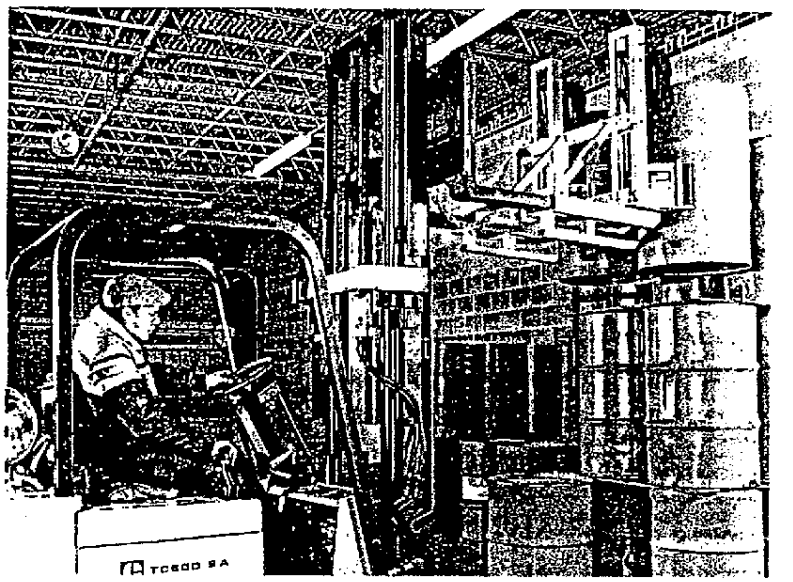
▪Pick up and release even damaged drums with incredible ease.

For any application, Liftomatic has the answer to your drum handling problems. Our model DCM double clamping mechanism is recommended where special problems exist because of overloaded fibre drums, light gauge (24-28) disposable steel drums, plastic and all standard steel drums. Anywhere the bead or chime will not handle the strain of being engaged at one point . . . disposable metal drums, badly battered drums weighing over 1,000 lbs., or fibre drums handling liquids and weighing over 600 lbs.

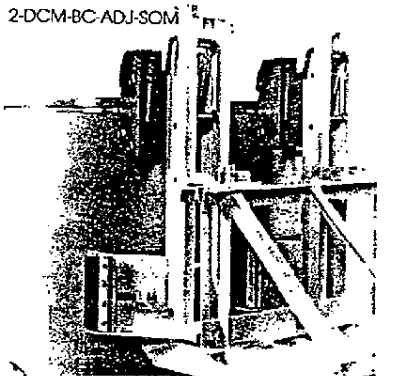
✦ Liftomatic drum handling attachments make stacking easy without the use of costly pallets.





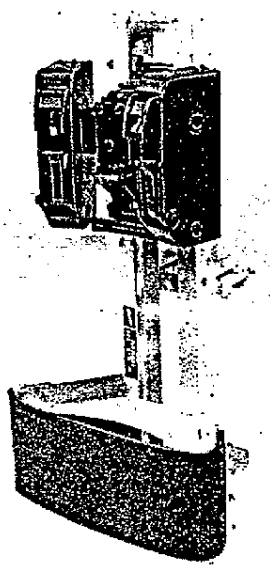
✦ Fibre drums are no problem for the DCM. Two sets of jaws engage the drum at points about 6" apart.

2-DCM-BC-ADJ-SOM

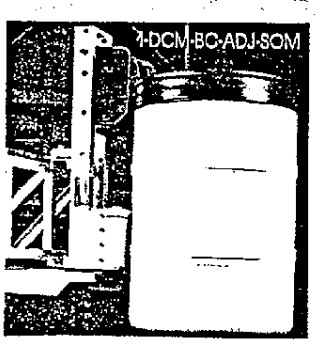


Special bell cradles offer cushioned support and protection for fibre, light-gauge, or lithographed drums. ✦ ✦

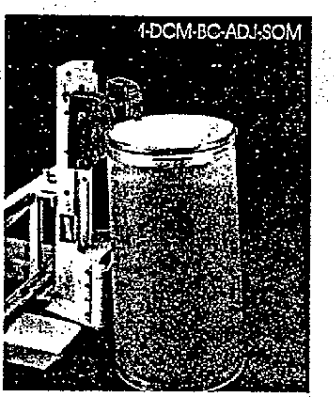
✦ Carriage mounted models are also available as extended units to facilitate step tiering or palletizing from one side.



1-CM-DCM-BC



✦ Standard or plastic drums are picked up and transported safely on a patented swivel action that allows both horizontal and vertical movement of the clamping mechanisms.



✦ This 50 gallon fibre drum designed for handling liquids is another special application that the Liftomatic DCM handles with ease.

2031177293

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 212

PLASTIC DRUM FILL PROCEDURE

1. Put on eye protection/goggles.
2. Wear rubber gloves and apron.
3. Place empty 30 gallon plastic drum on hand cart and locate next to ejector.
4. Insert hose into drum so that hose touches bottom of drum. (This will reduce suds).
5. At the same time, open the spring return detergent valve and the spring return water valve.
6. After drum is filled, release both valves.
7. Slowly remove hose and allow excess mixture to drain into drum.
8. Cap drum and transport to designated area.

6/003.RPL/1

2031177294

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

DRUM & BUCKET FILL PROCEDURE

1. Put on eye protection/goggles.
2. Wear rubber gloves and apron.
3. Hang bucket on bucket fill hook.
4. At the same time open the spring return detergent valve and push the colored dilution water button.
5. After bucket is filled, release button and shut detergent valve.
6. Keep spare bucket on hanger to minimize dripping.
7. The RED button produces a STRONG solution - 4:1.
8. The GREEN button produces a MEDIUM solution - 10:1.
9. The BLUE button produces a WEAK solution - 20:1.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

unijax

All Star

PRODUCT BULLETIN

NONBUTYL DEGREASER CLEANER - NB 100

DESCRIPTION: New revolutionary industrial strength nonbutyl degreaser cleaner that rapidly removes the most stubborn heavy greasy soils. Provides superior, safe, odorless, labor saving cleaning to reduce maintenance costs. Does not contain water soluble butyl solvents, toxic solvents or other harsh chemicals that contribute to water and air pollution. USDA approved (A-1) for cleaning all surfaces in meat and poultry plants.

ADVANTAGES:
Superior odorless degreasing, cleaning and emulsifying formulation.
Fast labor-saving cleaning with a maximum of safety to the user.
Free-rinsing for a thoroughly clean surface.
Safe, nontoxic, nonpolluting, nonflammable and completely biodegradable.

METHOD OF USE: Use by spray, brush, wipe-on, soak tank, automatic machine, pressure washer, steam cleaner, mop, cloth or sponge or other cleaning methods.
RESILIENT TILE, TERRAZZO, CEMENT, STONE, MARBLE, FLOORS, WALLS, BUILDING EXTERIORS: Use 1 part to 30 - 60 parts water depending on the degree of soil. For wax stripping use 1 part to 12 parts water. Apply cleaner liberally. Agitate to loosen wax and floor finish. Rinse away loosened soil or pick up with mop or Wet Vac.
FOOD PROCESSING, KITCHENS, OVENS, GRILLS, MEAT PLANTS, BOTTLING PLANTS: Use full strength for baked-on grease and carbon. For heavy greasy soil removal use 1 part to 6 - 8 parts water. Rinse food contact surfaces after cleaning.
GARAGE, AUTO PARTS, TOOLS, MACHINE SHOP, PRINTING EQUIPMENT, INDUSTRIAL MACHINERY: Use 1 part to 1 - 3 parts water for heavily soiled items and 1 part to 3 - 6 parts water for general shop cleaning and white sidewall tires.
TRUCKS, TRAILERS, BUSES, BOATS, AIRCRAFT, METAL CLEANING, PRE-PAINT CLEANING: Use 1 part to 8 - 12 parts water. Clean from bottom up and rinse well before drying.
BATHROOMS, LOCKER ROOMS, SHOWERS, SINKS, TUBS, TILES: Use 1 part to 30 parts water for general cleaning. Use 1 part to 4 parts water for scum removal. Apply cleaner, agitate to loosen scum, rinse surface clean.

PROPERTIES:

Color - Pink Liquid	Toxic Solvents - None
Odor - Pleasant	High Temp. Cloud - 155°F

DISTRIBUTORS THROUGHOUT THE SOUTH

01 KSONVILLE, FLORIDA 32203

2031177296

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

unijax

All Star

PRODUCT BULLETIN

NONBUTYL DEGREASER CLEANER - NB 100 (Cont'd)

PROPERTIES:

pH - 12.5
lbs./gal. - 8.78
Flash Point - None
Shelf Life - 1 Year Minimum

Low Temp. Cloud - Below 32°F
Freeze Thaw Stable - Yes
Biodegradable - Yes

PRECAUTIONS:

Keep out of reach of children. For industrial and institutional use only.

01

DISTRIBUTORS THROUGHOUT THE SOUTH

JACKSONVILLE, FLORIDA 32203

2031177297

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Subject

No. 213

Using water hose to clean production area

Water hoses will not be used in the Machine Room for the purpose of cleaning control panels, field stations, electric motors, lighting fixtures. etc.

Control panels/field stations and electrical motors are dangerous because if they should develop a short circuit and water come in contact with this it will be conducted down the stream of water into the employee's body.
Lighting fixture are dangerous in the fact that when water comes into contact with the tube there is a potential for an explosion. The glass fragments would be extremely hot and would cause serious injury to an employee.

After using the water hose, roll the hose up and store on the hose rack.

6/002.RPL/8

2031177298

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

PARK 500

LOSS PREVENTION DEPT.

POLICY, PROCEDURE, INSTRUCTION

ENVIRONMENT/SAFETY/HEALTH

PPI NO:	PAGE: 1 of 1
ISSUE DATE:	SUPERSEDES:
APPLICABLE TO: Park 500	
UPDATE RESPONSIBILITY: Loss Prevention Department	

SUBJECT: USING WATER HOSES TO CLEAN PRODUCTION AREA

I. PURPOSE

The purpose of this procedure is to minimize the potential for injuries resulting from possible electrical shock.

II. POLICY

A. Water hoses will not be used in an area for the purpose of cleaning push button control stations, electrical motors, lighting fixtures, etc.

1. Push button stations and electrical motors are dangerous because if they should develop a short circuit and water comes in contact with this it will be conducted down the stream of water into the employee's body.

2. The lighting fixtures are dangerous in the fact that when water comes into contact with the tube there is potential for an explosion. The glass fragments would be extremely hot and would cause serious injury to an individual.

3. When finished with them, water hoses must be rolled up properly by the user. If not, they constitute a tripping hazard.

B. Fire hoses will not be used for cleaning or washing down floors.

2031177299

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE:_____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION	JOB LOCATION
Proper Use of Water Hoses	MACHINE ROOM

TASKS	HAZARDS	SAFETY PRECAUTIONS
Using Hoses	GENERAL INJURY - Torso, Head, Limbs	1. Hose should be unrolled one coil at a time. This will help prevent hose from twisting in hands while stretching it out 2. Only unroll enough hose to do the job. Do not have a lot of slack in the hose that could get caught in the machine. 3. Valve water on slowly, not all at one time. 4. When stretching hoses for long distances or from one level to another, have someon help unroll the hose and valve water on and off. 5. Never stretch hoses from one side of the room to the other, there are hoses located on both sides. 6. Keep hands dry and free of foreign substances such as soap and grease while using high pressure hoses to prevent them from slipping out of the hands. 7. Keep hoses to the side of the body and do not allow the feet to become tangled in hoses while in use.

2031177300

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE: PROD. 82-151

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION Proper Use of Papermaker Hoses		JOB LOCATION Machine Room
TASKS	HAZARDS	SAFETY PRECAUTIONS
Proper use of Papermaker hoses	EYE INJURY -	1. Keep water hose away from eyes.
	FALLS -	1. Be extremely careful when walking in water. Be alert when handling paper maker hose.
	STRAINS -	1. Maintain good posture when using hose.
	HAND INJURY -	1. Keep fingers six inches away from end of hose.
	Hitting other employees with water	1. Create an awareness of hazards involved. Watch out for other employees.
	Hitting area motors, panels, breakers	1. Keep water away from motors, panels, and breakers.
	Carrying water hose	1. Cut back on water pressure when carrying hose. Hold hose pointed in downward position.

2031177301

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE: _____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION
Washing Down Stairwells

JOB LOCATION
Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Washing Down Stairwells	EYE INJURY - Splashes from water, soap, etc.	1. Wear approved safety glasses
	HAND INJURY - Cuts, Irritation	1. Use gloves to prevent cuts and irritation to skin from soaps, NB 100, etc.
	GENERAL INJURY - Slips, Falls, etc.	1. Use caution when using soaps to prevent slips. 2. Watch for proper foot placement; use hand rails while going up or down.
	FOOT INJURY -	1. Always wear approved safety shoes to prevent injury to feet.
	NOTE:	1. Safety signs "Wet Floor" should be used whenever the task is done.
	ELECTROCUTION -	1. Avoid spraying water on light fixtures/electrical outlets

2031177302

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 214

Subject

Shift Change Communication Sheet

Summary

Shift change communication sheet is broken down into six major topics.

- Equipment
- Safety/Lock out
- Support Area Problems
- Feltwash activities
- Housekeeping
- Process changes

Filling out the shift change communication sheet is a important part of your job, it conforms with the Q500 Principles.

Equipment-refers to the equipment Machine Room general laborers use in their daily jobs, list problems associated with the equipment, or if the equipment is stored in a unusual place list whereabouts

Safety/Lockouts-safety refers to existing area hazards that the oncoming Machine Room general laborer will need to know about, steam leaks or an area spill that has not been cleaned up. Lockout refers to items the Machine Room general laborer uses in his/her daily jobs.

Support Area-refers to Environmental Engineering having problems which requires as little water as possible being used for process cleaning, also problems which may cause downtime.

2031177303

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Feltwash Activities-refers to the equipment a Machine Room general laborer may use example: paper maker hose has a hole in it, or the foamer needs to be filled. Feltwash activities also, pertains to the detergent mixture; amount of water and soap to use. Also, list any maintenance activities going on during feltwash.

Housekeeping-refers to items that need to be cleaned on the feltwash. What items were cleaned on your shift and the level status of the N8-100 drums.

Process Changes-refers to the operation of the broke pulper. If the broke pulper is operating in the normal mode making up broke, or if the broke pulper is just being filled with RBW.

2031177304

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 301

JOB SAFETY ANALYSIS

PARK 500 CODE: _____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION	JOB LOCATION
Cleaning up Stock Spills	Plant-General

TASKS	HAZARDS	SAFETY PRECAUTIONS
Cleaning up Stock Spills	BACK INJURY - Strains, Sprains, Pulled Muscles	1. Use proper lifting procedures when shoveling stock off of catwalks and floors and emptying into dumpsters. 2. Do not overload shovel. Only shovel amounts that can be comfortably handled.
	HAND INJURY - Blisters, Punctures from Splinters	1. Wear leather gloves when using shovels to removed stock spills.
	GENERAL INJURY - Head, Torso, Limbs	1. Use proper foot placement when cleaning stock off of catwalks and floors to prevent slipping. 2. Be observant of low overhead clearance areas under presses so as not to hit the head. 3. Do not leave water hoses strung out across floors unattended. 4. Be observant of other people passing through area when using water hoses so as not to wet them down.

2031177305

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 302

JOB SAFETY ANALYSIS

PARK 500 CODE: PROD. 82-122

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION	JOB LOCATION
Safe Use of Shovels	Plant - General

TASKS	HAZARDS	SAFETY PRECAUTIONS
Safe Use of Shovels	**HAND & FINGER INJURIES**	**1. Leather gloves should be worn.** **2. Shovel edges should be kept trimmed and the handles checked for splinters.**
	FEET AND TOE INJURIES	**1. Employees should wear safety shoes with sturdy soles. So if the foot should slip off of the shovel, the sharp corner of the shovel will not cut through the shoe onto the foot.** When not in use, shovel should be stood against a wall or kept in racks or boxes.

2031177306

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

No. 303

PARK 500 CODE: MAINT. 82-14

Department: Maintenance & Engineering Page No: 1 of 1

DESCRIPTION OF OPERATION
Use of Utility Knives

JOB LOCATION
Plant - General

TASKS	HAZARDS	SAFETY PRECAUTIONS
Using utility knives to open boxes and packages.	Cutting yourself	1. Always cut away from, never towards yourself. 2. Make sure knife is closed when it is not being used.
	Cutting others.	1. Be sure area around you is clear when you are using knife to open boxes or packages. 2. Do not use "wild" strokes that could slip from box or package and cut someone nearby. 3. Never engage in "horseplay" using knife.

2031177307

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 304

JOB SAFETY ANALYSIS

PARK 500 CODE: _____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION
Using High Horse Ladder

JOB LOCATION
Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Using High Horse Ladder	HAND INJURY - Bruises, Breaks FINGER INJURY - Pinch or Bruise GENERAL INJURY - Torso, Head, Limbs, and Others	1. When lowering unit, do not turn crank backward before releasing safety latch. 1. Beware of pinch points when rolling guardrail cage. 1. Do not let anyone move ladder while on platform. 2. Always lower kick board. 3. Inspect wire rope for frayed ends. 4. Make sure cage is secured with pins on both sides. 5. Operate on firm level surface. 6. Check for damaged parts on unit. 7. Set floor jacks. 8. Always erect safety cage. 9. Secure safety chain when on platform. 10. Always extend outriggers. 11. All personnel should stand clear when raising or lowering ladder. 12. Do not use on incline.

2031177308

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 304

JOB SAFETY ANALYSIS

PARK 500 CODE: _____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION
Using High Horse Ladder

JOB LOCATION
Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Using High Horse Ladder	HAND INJURY - Bruises, Breaks FINGER INJURY - Pinch or Bruise GENERAL INJURY - Torso, Head, Limbs, and Others	1. When lowering unit, do not turn crank backward before releasing safety latch. 1. Beware of pinch points when rolling guardrail cage. 1. Do not let anyone move ladder while on platform. 2. Always lower kick board. 3. Inspect wire rope for frayed ends. 4. Make sure cage is secured with pins on both sides. 5. Operate on firm level surface. 6. Check for damaged parts on unit. 7. Set floor jacks. 8. Always erect safety cage. 9. Secure safety chain when on platform. 10. Always extend outriggers. 11. All personnel should stand clear when raising or lowering ladder. 12. Do not use on incline.

2031177309

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

No. 305

PARK 500

CODE: _____

Department: Production

Page No: 1 of 1

DESCRIPTION OF OPERATION
Using Chemical Drum Opening Tool

JOB LOCATION
Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Opening Chemical Drum	EYE INJURY -	1. Wear safety glasses/goggles whenever handling chemical drums.
	HAND INJURY -	1. Wear leather or rubber gloves to protect hands against chemicals and/or pinch points.
	GENERAL INJURY -	1. Ensure proper tool is used for each different type of drum top. 2. Apply pressure to top of tool while attempting to turn it in order to keep it in control. 3. Stand as far back from drums as possible in case contents have been pressurized.

20311177310

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

No. 306

PARK 500

CODE: _____

Department: Production

Page No: 1 of 1

DESCRIPTION OF OPERATION

Use Of Portable Ladders

JOB LOCATION

Plant - General

TASKS	HAZARDS	SAFETY PRECAUTIONS
Positioning of the Ladder	GENERAL INJURY - Falls	1. Portable ladders shall be so placed that the side rails have a secure footing. 2. Ladders should not be placed in front of doors. 3. The ladder is to be placed as to prevent slipping. 4. The ladder should not be placed on any unstable base. 5. When ascending or descending a ladder, the user should face the ladder. 6. The top rest should be ridged and have ample strength to support the applied load. Note: 1. No more than one (1) person on a ladder at the same time. 2. No one should use the top of the ladder to stand on.

2031177311

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 307

JOB SAFETY ANALYSIS

PARK 500 CODE: PROD. 82-152

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION: Unplugging Conveyors

JOB LOCATION: Machine Room

TASKS	HAZARDS	SAFETY PRECAUTIONS
Unplugging Conveyors	BODY INJURY -	1. Never let anyone ride on moving conveyors.
		2. Power should be cut off before getting on conveyor. Follow Lock Out Procedure.
		3. Be extremely careful when unplugging conveyors. Avoid bodily injury because of carelessness.
		4. Maintain good posture.
	EYE INJURY -	1. Wear safety glasses & Leather Gloves when unplugging conveyors.
	GENERAL INJURY -	1. Remove all personal items from pockets before unplugging conveyors.
		2. Wear necessary respiratory equipment
		3. Only use tools and equipment which meet area procedure.

2031177312

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

2031177313

safety first

and

always

⚠ WARNING

FOR YOUR SAFETY AND THE SAFETY OF OTHERS, BEFORE YOU OPERATE THIS TRUCK:

READ ALL WARNINGS AND INSTRUCTIONS IN THE OPERATOR'S MANUAL AND ON THE TRUCK.

CHECK THE TRUCK FOR CORRECT OPERATION.

DO NOT OPERATE THIS TRUCK UNLESS YOU ARE TRAINED AND AUTHORIZED TO DO SO.

No. 401

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

For Handy Reference:

Record The Following Information Pertaining To Your Truck

Model No. _____

Serial No. _____

Customer Truck Identification No. _____

Truck Weight, Empty _____

Truck Rated Capacity _____

Truck Gross Weight, Loaded w/Rated Load _____

Special Equipment or Attachments _____

_____

Attachment Weight _____

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2031147231

Operator's Manual

You must be trained and authorized to operate a lift truck.

YOU can prevent accidents!

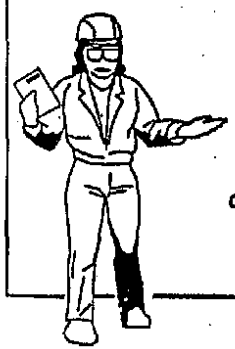
Safe operation is the responsibility of the operator.

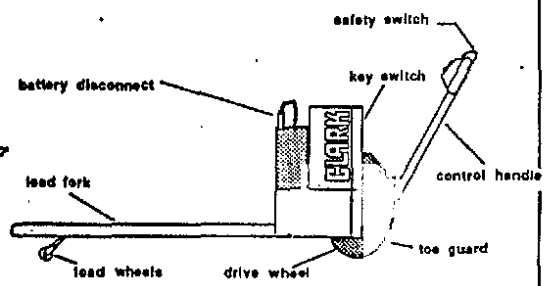
First: Learn safe operating rules and your company rules.

Next: Read and understand your Operator's Manual.

Learn about the unit you operate.

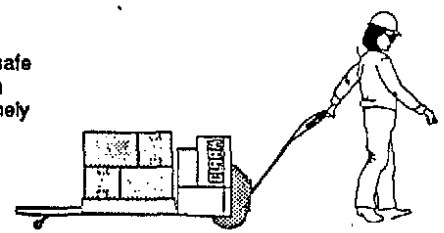
KNOW YOUR TRUCK





Then: Practice operating your truck safely.

And: Keep your truck in safe operating condition with correct and timely maintenance.



Breaking these rules will cause serious or fatal injury to yourself and others.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

2031172315

OPERATING SAFETY AND HAZARDS

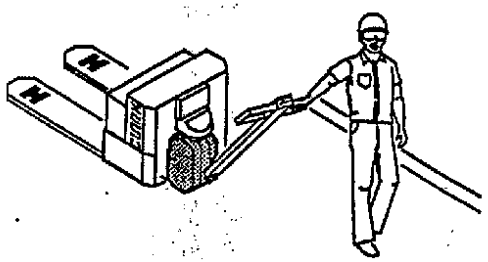
This section shows hazards that may cause you, or someone around you, to be ***BADLY HURT OR KILLED.***

As the operator, you must be aware and look for other hazards. Get your boss to help identify and avoid those hazards.

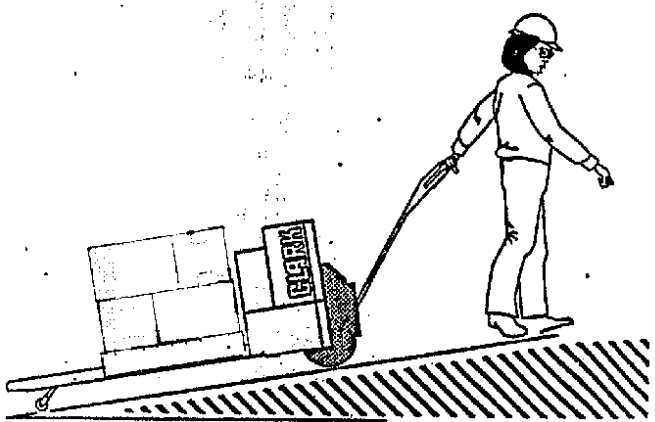
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Truck Application

Each truck is designed for a specific application. Make sure you are using the correct truck for the job.



This Truck is designed for use in areas where loads only need to be moved short distances on smooth and level floors and where dock plates are not greater than 5 % grade.



ramp angle or grade not to scale

GENERAL SAFETY RULES

INDEX

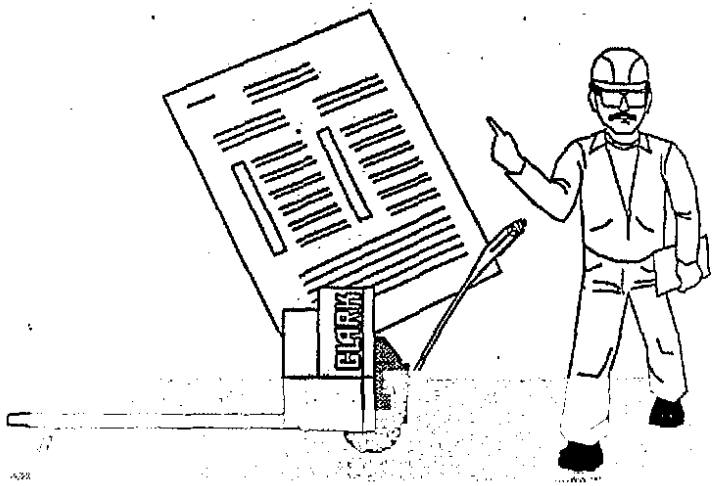
Daily Inspection 1.2

Do's and Don'ts 1.3

2031172316

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

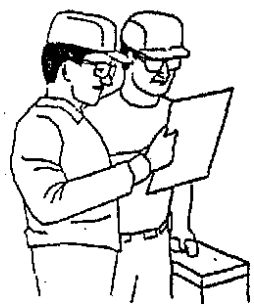
General Safety Rules
Daily Inspection



At the beginning of each shift inspect your truck, fill out a daily inspection sheet and return it to your supervisior.

Check for damage and maintenance problems.

Have problems, even minor ones, repaired before you operate the truck.



Do not make repairs yourself. Lift truck mechanics are trained professionals. They know how to make repairs safely.

GENERAL SAFETY RULES
DO'S AND DON'TS

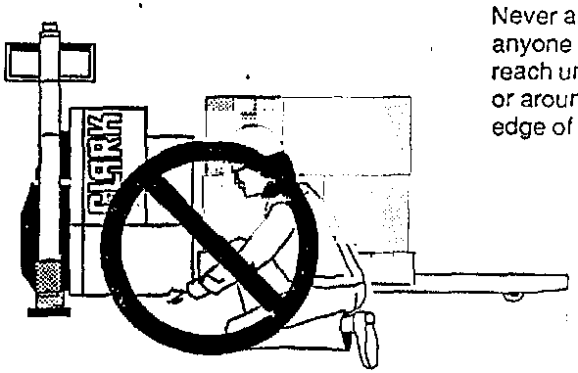
DON'T MIX DRUGS AND ALCOHOL WITH YOUR JOB.

DON'T BLOCK SAFETY OR EMERGENCY EQUIPMENT.

DO WATCH FOR PEDESTRIANS.

DON'T SMOKE IN "NO SMOKING" AREAS.

DO WEAR SAFETY EQUIPMENT WHEN REQUIRED.



Never allow anyone to reach under or around the edge of the truck.

Be especially careful to not put any portion of your body under or around the edge of the forks.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

WARNING

FOR YOUR SAFETY AND THE SAFETY OF OTHERS

BEFORE YOU OPERATE THIS TRUCK!

READ ALL WARNING AND INSTRUCTIONS IN THE OPERATOR'S MANUAL AND ON THE TRUCK.

CHECK THE TRUCK FOR CORRECT OPERATION.

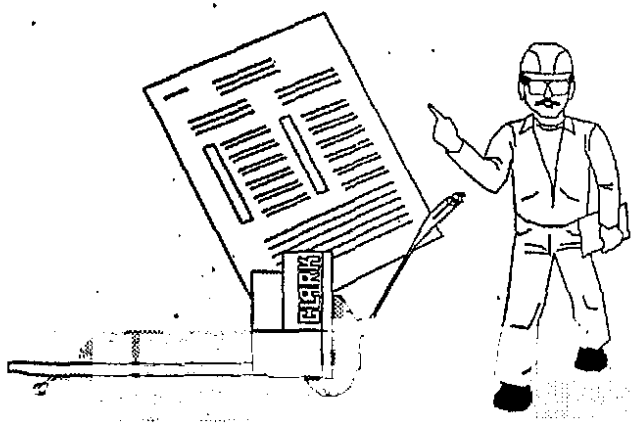
DO NOT OPERATE THIS TRUCK UNLESS YOU ARE TRAINED AND AUTHORIZED TO DO SO.

20311772318

Warning **- Inspect your lift truck before operating at the start of the day or shift. Before putting your truck to use, check the operation of the controls and all systems.**

BEFORE OPERATION

Review operator's daily check list to make certain that it has been properly marked, sign it and turn it in to the proper authority.

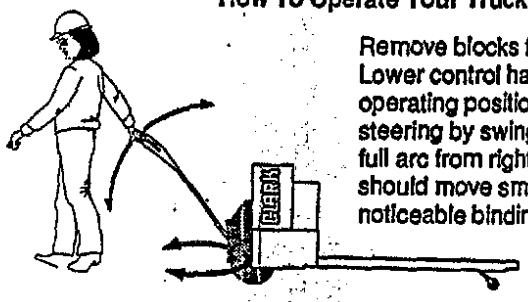


Be alert: look and listen for unusual or erratic truck operation. Report any malfunction immediately so that required adjustments or repairs may be performed by thoroughly Trained and qualified personnel.

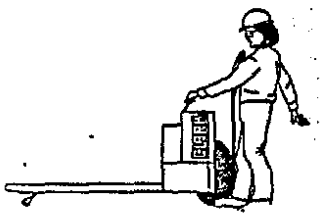
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Operating Procedure

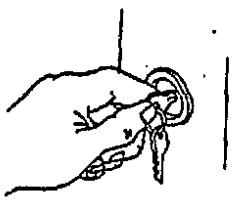
How To Operate Your Truck

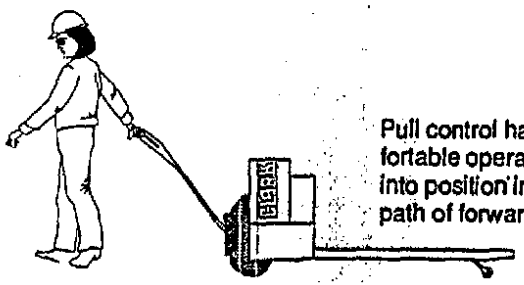


Remove blocks from drive wheel. Lower control handle to comfortable operating position and check steering by swinging handle through full arc from right to left. Handle should move smoothly without noticeable binding.



Plug battery connectors. Insert key and turn clockwise to "on " position.





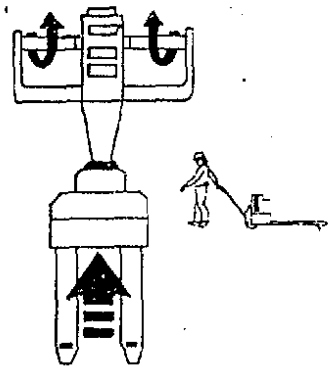
Pull control handle down to comfortable operating level and swing into position in line with desired path of forward or reverse travel.

Be alert : check around to insure the desired path of travel is clear of obstructions andpersonnel.

Operating Procedure

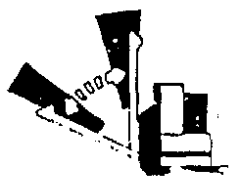
FORWARD:

Place hand on the right (or left) hand grip of the directional control, lower handle to operating level and gently twist grip toward you to slowly accelerate the truck. Truck will move forward ***(toward you)*** slowly. Travel speed may be increased by continued turn of the grip.



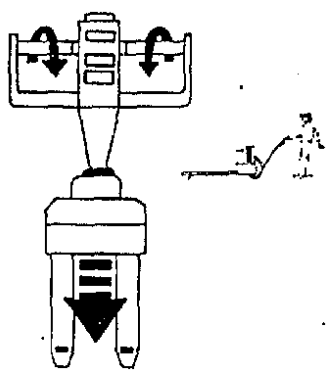
BRAKE

Move control handle vertically from "full-up" to "full-down" and return to "full-up" position while checking brake application. Truck brakes should be firmly applied at both extremes of handle travel.



REVERSE

Place hand on the right (or left) hand grip of the directional control, lower handle to operating position and gently twist grip away from you to slowly accelerate the truck. Truck will move in reverse ***(away from you)*** slowly. Travel speed may be increased by continued turn of the grip.



Keep hands and fingers inside the protected area of the control handle when traveling or turning.

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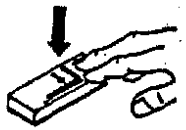
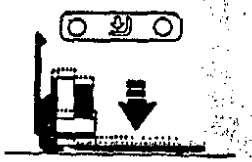
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Operating Procedure



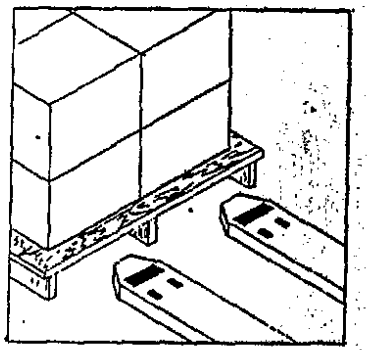


Lower pallet load forks before entering load and remember to center load on forks as you approach it.

Review page 4 .05 for Reverse operation

Always enter the load as far as possible.

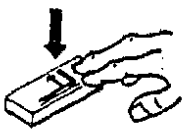
Before lifting the load make sure that the lifting area is adequate and unobstructed.

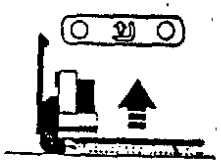


Check to insure that pallet forks are unobstructed then press firmly on the lift switch and hold until forks have elevated to maximum height. Release pressure on the lift switch to stop fork elevation at desired height.

Lower control handle to comfortable operating level and check to be sure that desired path of travel is unobstructed.

Review page 4 .05 for Forward operation.

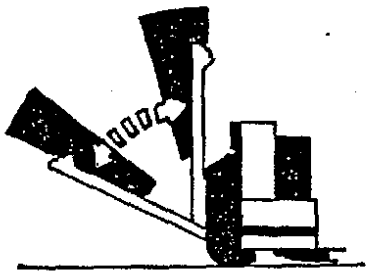




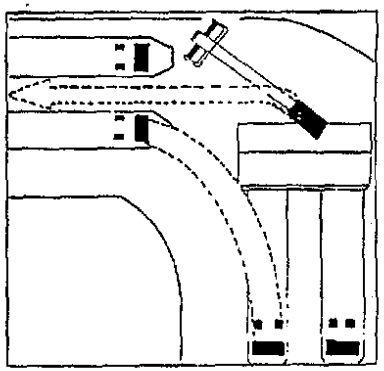
Rembember to travel with load fully elevated to provide maximum clearance. This will reduce the possibility of load pallet contact with the floor and its irregularities (if any).

Operating Procedure

To stop truck, release directional control grip (allowing switch to return to neutral) and raise or lower control handle to near vertical position. (This will activate brake switch cutting power to drive motor and apply brakes).

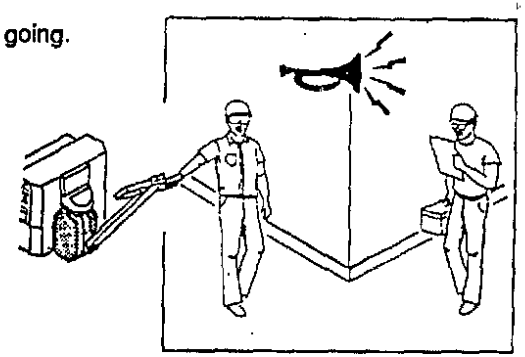


Always use caution when making right or left turn into aisle. Load wheels do not follow the trun path of the dirve wheel. They will tend to "cut" the corner.



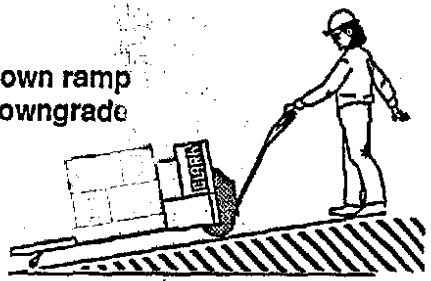
Watch where you are going.

When operating your truck in congested or active areas remember to press the horn button at all corners, exits, entrances and when nearing pedestrians.



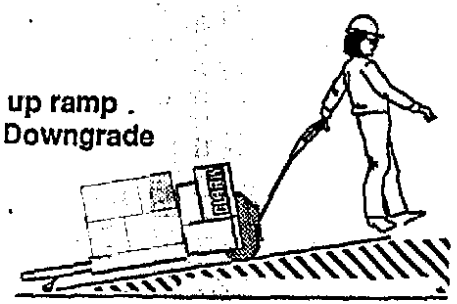
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Going down ramp
Forks Downgrade

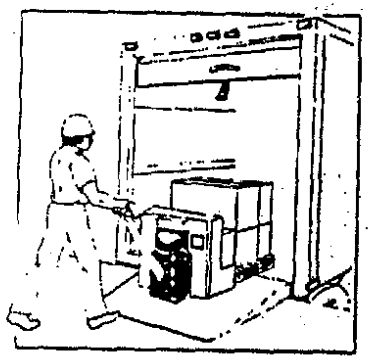


When moving up or down a grade the forks should be kept downgrade with or without a load on the truck.

Going up ramp .
Forks Downgrade

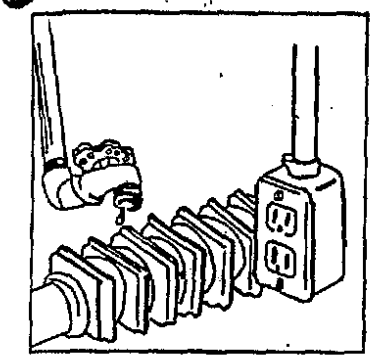


The operator should control the truck from a walk position when on a grade.

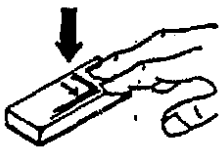


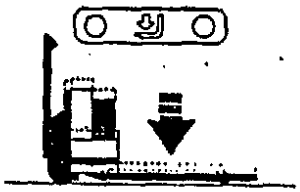
Enter confined areas such as semi trailers, trucks, boxcars or elevators with load end of your truck first.

This will minimize the maneuvering necessary to exit.



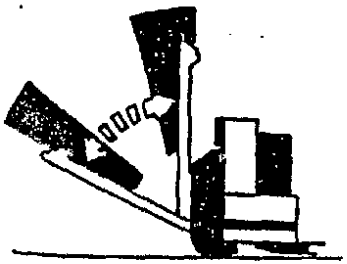
Always approach load deposit areas squarely and cautiously. Be especially careful when placing loads near water pipes, electrical wiring or outlets, steam pipes, heaters and other fragile or dangerous equipment or material.





When load to be deposited has been positioned as desired, press "lower" button and hold until pallet forks are owered as far as possible.

Hold "lower" button for 1-2 additional seconds before exiting from pallet.



Place control handle in full turn position and raise the handle to "full-up" position so that truck brake is applied.

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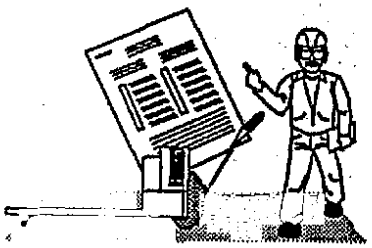
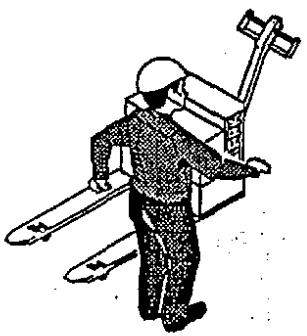
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

BEFORE OPERATION CHECKS

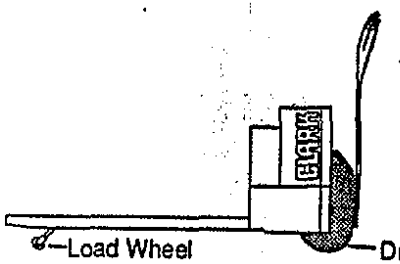


Each operator must complete the daily checklist before you operate the truck. Make sure all safety systems work correctly. Do not operate a lift truck that has damage or is not safe. Make a report of decals that are missing or damaged and replace them immediately.



Walk completely around your truck and look for damage and leaks.

Note all damage and leaks on the operator's daily check list.



Check condition of drive wheel and tire assembly.

Do not place any portion of your body or limbs under any part of the lift truck, or around the base of the control handle.

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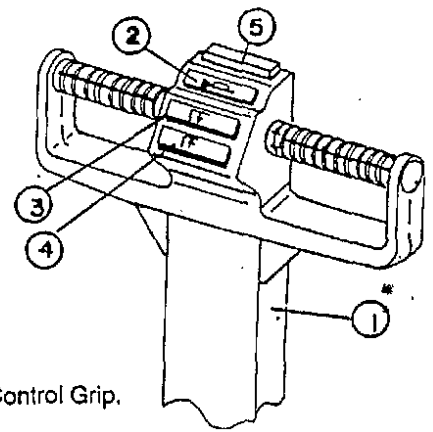
BEFORE OPERATION CHECKS

Warning - Inspect your lift truck before operating at the start of the day or shift. Before putting your truck to use, check the operation of the controls and all systems.

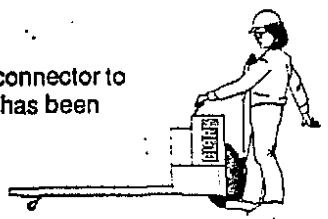
OPERATOR CONTROLS

1. Steering Control Handle and Brake *
2. Horn Button.
3. "Lift" Control Button.
4. "Lower" Control Button.
5. Safety Cut-off Switch Button.
6. Foward, Reverse, and Speed Control Grip.



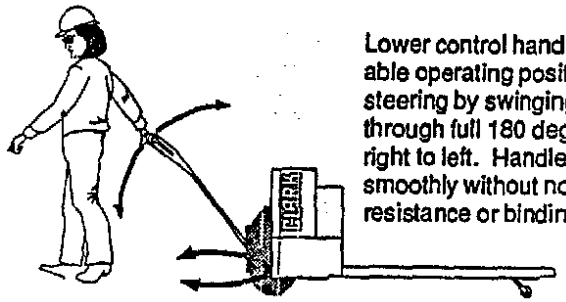
Brake is applied when control handle is in the "Up" or "Down" position.

Visually check battery connector to make sure that battery has been properly connected.



Note condition of electrical cables and wiring and report all worn, frayed,or cracked cables to proper authority.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

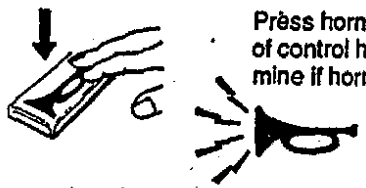


Lower control handle to comfortable operating position and check steering by swinging handle through full 180 degrees arc from right to left. Handle should move smoothly without noticeable resistance or binding.

Keep hands and fingers inside the protected area of the control handle when traveling or turning.

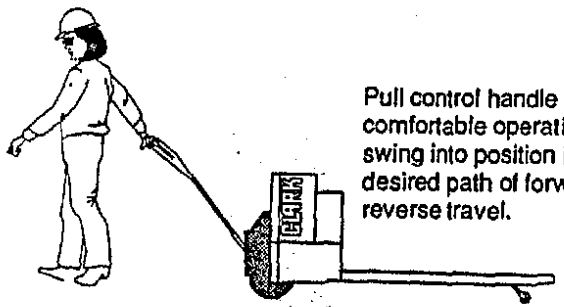
RETURN CONTROL HANDLE TO FULL UP POSITION.

Insert key into switch and turn clockwise to "on" position.



Press horn button (mounted on top of control handle head) to determine if horn is operational.

If horn does not function properly, note it on operator's daily check list.

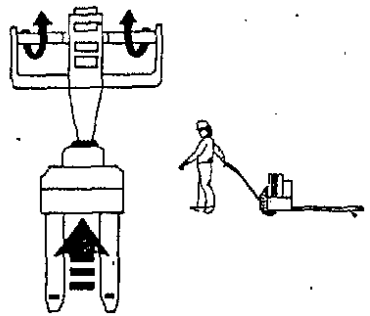


Pull control handle down to comfortable operating level and swing into position in line with desired path of forward or reverse travel.

Be alert check all around to insure that the desired path of travel is clear of obstructions and personnel.

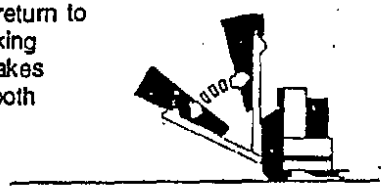
Forward, Reverse and Brake Check

Place hand on the right (or left) hand grip of the directional control, lower handle to operating level and gently twist grip toward you to slowly accelerate the truck. Truck will move forward ***(toward you)*** slowly. Travel speed may be increased by continued turn of the grip.

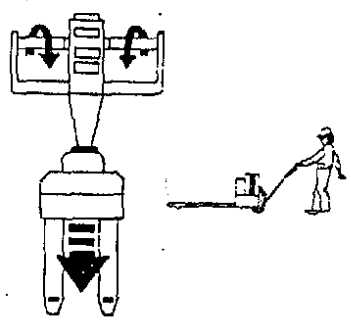


BRAKE CHECK

Move control handle vertically from "full-up" to "full-down" and return to "full-up" position while checking brake application. Truck brakes should be firmly applied at both extremes of handle travel.



Place hand on the right (or left) hand grip of the directional control, lower handle to operating position and gently twist grip away from you to slowly accelerate the truck. Truck will move in reverse (***away from you)*** slowly. Travel speed may be increased by continued turn of the grip.



REPEAT BRAKE TEST DESCRIBED ABOVE

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

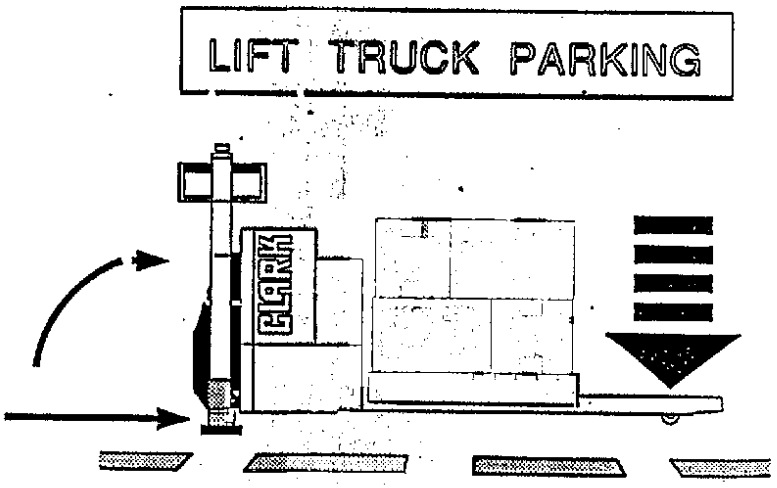
When You **Have Finished The Operation Checks**

Park the lift truck in a **designated parking area only.**

Do not obstruct traffic lanes, aisles, or access to safety areas.

Raise control handle to "full-up" position so that truck brake is applied and turn handle to full turn position. Turn key to off position. Remove key and unplug battery connector.

Lower pallet forks (see page 3 .7)



To prevent truck from rolling, block drive tire with wedge blocks

Operator Controls

Before Operating
How To Perform The Daily Inspection

Operation
How To Operate Your Truck

Parking
When You Have Finished Using Your Truck

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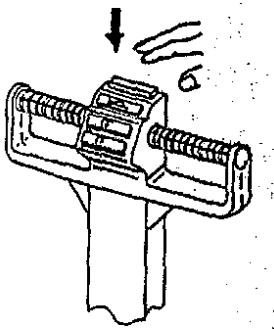
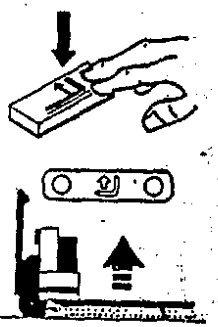
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000



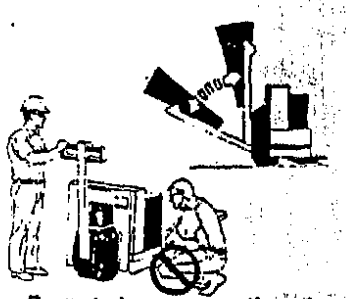
Check the operation of the mechanical reversing switch: In an unobstructed operating area, move the truck in forward direction (toward you). permit the red mechanical reversing switch to make contact with your body (or hand), which pushes the switch in.

The truck will move away from you for a moment.



Check to insure that pallet forks are unobstructed then press firmly on the lift switch and hold until forks have elevated to maximum height. Release pressure on the lift switch to stop fork elevation at desired height.

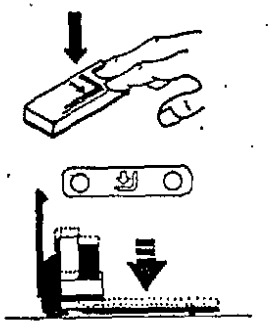
Check to insure that you have adequate unobstructed clearance before attempting lift.



Release control handle in "full-up" position (to apply brakes), turn key to off position then walk to pallet fork end of truck and visually check condition of load wheels.

Do not place any portion of your body or limbs under any part of the lift truck, or around the base of the control handle.

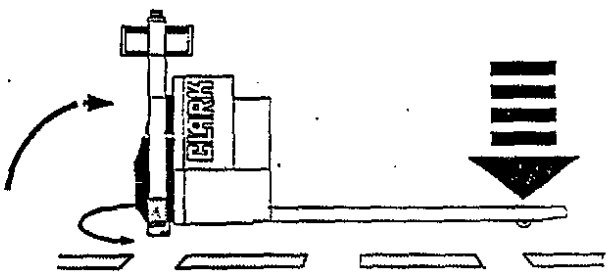
Lower pallet forks to floor by pressing "lower" button and holding until forks lower fully.



Do not place any portion of your body or limbs under any part of the lift truck, or around the base of the control handle.

Return to station.

Put control handle in full turn postion and raise the handle to "full-up" position so that truck brake is applied. Turn key to off position.



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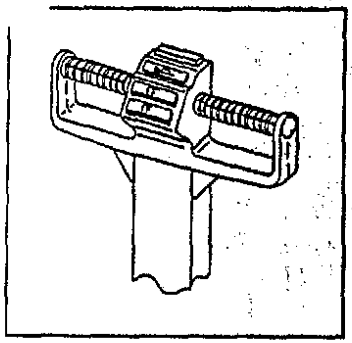
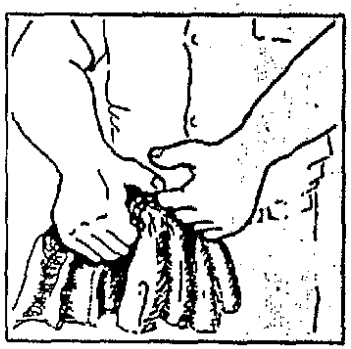


Learn how your truck is operated. Know its safety devices and how they function and work.

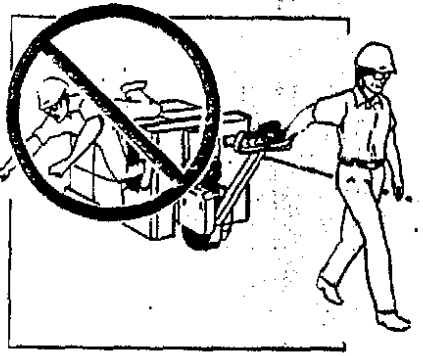
⚠ WARNING

Only trained and authorized personnel can operate Clark lift trucks.



⚠ CAUTION

Never operate a lift truck with wet hands or shoes. Never hold any controls with grease on your hands; your hands will slide off of the controls and cause an accident.



Trucks of this type are designed to be controlled by a walking operator. Never ride a truck of this type or indulge in horseplay while operating these trucks.

Do not operate your truck in unauthorized areas. Follow all safety rules and read all warning signs.

COMPANY RULES

The following areas are off limits for truck operation:

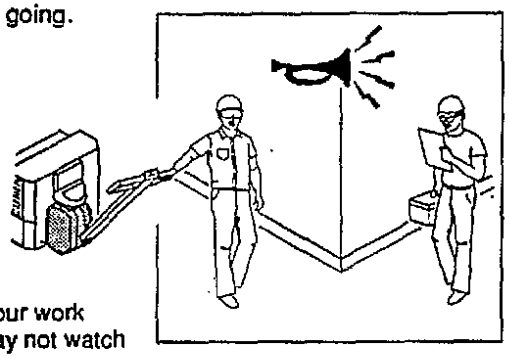
1.

2.

3.

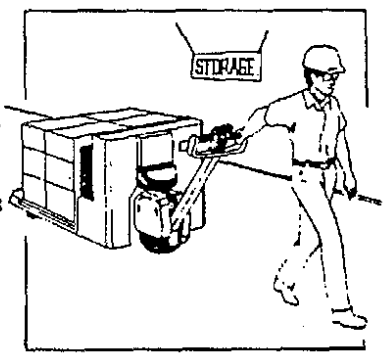
Watch where you are going.

Pedestrians may use the same roadway you do. Slow down and sound your horn at all intersections, exits, entrances and whenever approching people.



Watch for people in your work area because they may not watch for you.

This lift truck is designed for use in areas where loads only need to be moved short distances.



DO NOT use on grades or inclines which are greater than or exceed 5%.

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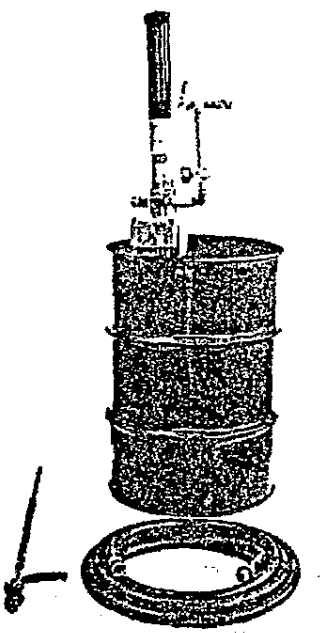
TEXO

No. 402

TEX-O-FOAMER

P160-V

FOAM GENERATOR FOR THOSE HARD-TO-CLEAN SURFACES



—REDUCE CLEANING LABOR COSTS
—REDUCE CLEANING MATERIAL COSTS

Now clean walls, ceilings, floors with less materials in less time.

Foam plus Texo's hard working cleaners allows full penetration of the soil to enable complete rinsing.

Attaches to any air outlet. Fits open head 55 gal. drum. Pre-mix foam and cleaner and begin spraying.

Perfect for smokehouse walls, food plants, poultry processers and any other installations where retaining cleaning solutions on surfaces is a problem.

Cuts cleaning time in half.

Texo Corporation, 2801 Highland Avenue, Cincinnati, Ohio 45212 (513) 731-3400

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TEX-O-FOAMER

OPERATIONAL INSTRUCTIONS

The TEX-O-FOAMER is an air operated pump that uses plant air pressure to drive the pump cylinder while by-passing part of the cfm's into the discharged liquid to cause turbulence, which produces a foam.

The pump has a ratio of 1½-1 which means for every pound of air pressure introduced into the pump results in 1½ pounds of pressure being discharged.

Operating the foamer requires a minimum of 30-35 pounds of air depending on the material to be pumped. Adjustments to the valving produce the type of foam required. Once set, the unit is ready for continuous operation.

To maintain a steady performance, it is highly recommended that an air regulator be placed in the air line feeding the pump and set for a maximum of 40-60 psi range, higher if foam is to be applied to areas that require additional air pressure (Max. 200 psi).

The procedures for using this type of foamer are as follows:

...Mix the solutions in a open head drum.

...Place the foamer into the drum and tighten the drum clamp securing the pump to the drum.

...Adjust the air regulator; 40-60 psi.

...Connect the air line to the foamer.

...Adjust the by-pass metering valve to open by about a 1/4 turn. Keep air pump metering valve closed.

...Open up the air inlet ball valve.

...Start adjusting the air pump metering valve open until pump starts to cycle.

...Adjust both the by-pass and air pump metering valves to attain a thickness of foam. More air by-passed produces a drier type of foam. More pressure results in a longer throw of foam out the wand.

...Upon completion of adjustments to attain the type of foam the foamer can be shut off by closing the air inlet ball valve.

-over-

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When the liquid in the container becomes to low and is not being drawn up into the pump the unit will start to cycle very fast. At that time, shut off the air inlet ball valve and mix another batch of cleaning solution in the drum.

Upon the completion of any foam cleaning using this foamer, clear water should be pumped through the pump and out the wand. This will greatly enhance the life and performance of the TEX-O-FOAMER.

To be sure the pump operates smoothly, always maintain an adequate amount of #10 viscosity lubricating oil in the oiler.

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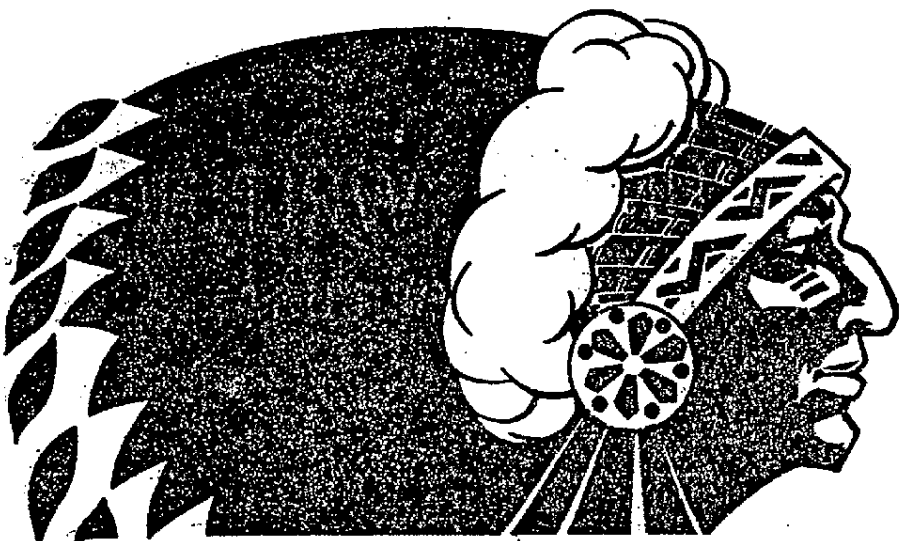
No. 403



SIOUX®

BERESFORD, SOUTH DAKOTA 57004

INSTRUCTION MANUAL
MODEL 514-4
ELECTRIC
230/3/60
SERIAL NO. 068955

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SIOUX PART NO. 10H12

IMPORTANT:
READ ALL INSTRUCTIONS BEFORE USING SPRAY GUN

SEE DATA SHEET 18208 AND PARTS LIST PL60, 60W ATTACHED
(FOR 60-B3/8 AND 60-W-B3/8 WITH 3/8" BSPT INLET CONN. SEE PL60B, 60W-B)

SAFETY PRECAUTION: THIS IS A HIGH PRESSURE DEVICE WHICH SHOULD ONLY BE USED IN A PROPERLY ENGINEERED SYSTEM. THIS SPRAY GUN SHOULD BE OPERATED ONLY BY TRAINED OPERATORS AND KEPT OUT OF REACH OF CHILDREN. PLEASE READ THE FOLLOWING INSTRUCTION SHEETS BEFORE ATTEMPTING TO OPERATE THE #60 HIGH PRESSURE GUNJET SPRAY GUN.

HEED THESE WARNINGS OR SERIOUS AND PERMANENT INJURY MAY RESULT:

1. DO NOT aim gun at any person or any part of the body. Fluids under high pressure can penetrate the human skin and can cause severe injury, possibly resulting in amputation or death. Hot liquids and chemicals can also cause burns or injury. If any part of the body comes in contact with the spray stream, immediately consult a physician.

2. DO NOT at any time place hand or any other part of the body in front of spray nozzle or tip.

3. DO NOT alter equipment in any manner; if repairs are necessary, use only genuine factory repair parts supplied by SPRAYING SYSTEMS CO.

4. DO NOT exceed maximum operating pressure of the lowest rated accessory item within the spray system, even though some of the accessories have a higher maximum pressure rating.

5. DO NOT leave equipment under pressure unattended at any time. Relieve pressure by shutting off power to pump, turning off the liquid supply to the pump, and actuating Trigger until all fluid ceases to flow; then position Trigger Lock to the "locked" position.

6. DO NOT use damaged, perforated, or weakened fluid hose.

7. DO NOT use a Gunjet with a faulty or damaged Trigger Lock.

8. DO NOT operate a spray gun if there are any leaks from the packings, fittings, hoses, etc. Fluids which are under high pressure can penetrate skin, cloth, etc. and cause serious injury.

9. DO NOT touch any metal parts of the gun or accessories when spraying hot liquids or severe injury can occur.

WARNING: WHEN THE SPRAY NOZZLE OR TIP HAS BEEN REMOVED, A SPRAY GUN BECOMES MORE DANGEROUS BECAUSE A GREATER VOLUME OF LIQUID CAN BE EMITTED FROM THE OUTLET OF THE GUN AT HIGH VELOCITY.

(C-14-1)

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SAFETY SHOULD ALWAYS BE OBSERVED:

1. DO use a "two-handed" control of #60 Gunjet at all times. Grasp spray gun firmly with both hands. If an extension is used, grasp the extension. (Insulated extension if spraying hot liquids).

2. DO adopt a secure body stance prior to and during spray operation to safely control the high reactionary force of this unit.

3. DO impress on other people in the spraying area the importance of obeying strict safety precautions for everyone's safety.

4. DO develop a habit of shutting off the power to the pump, relieving fluid pressure from gun and hose by actuating trigger until all fluid ceases to flow, and setting the Trigger Lock in the locked position, before attempting to remove the tip, nozzle, gun or any part of the gun.....or when gun is not in use.

5. DO check operation of Trigger Lock before each spray period. Trigger Lock must hold the Trigger to its forward position. (Adjust if necessary - see section, Trigger Adjustment Procedure.)

6. DO carefully check and tighten threaded connections regularly. Make them secure and leakproof.

7. DO flush gun after each spray period, using the same safety precautions as used during spraying operations. Always use the lowest possible pressure for flushing.

8. DO keep gun clean and dry to allow for positive grip.

9. DO use Gunjet in a well ventilated area and make sure spray gun is grounded properly when used in a possibly explosive or inflammable environment.

IMPORTANT: IN CASE OF THE SLIGHTEST APPEARANCE OF SKIN PENETRATION FROM SPRAY, CONSULT A PHYSICIAN IMMEDIATELY.

INSTALLATION:

1. Before installing Gunjet to hose, select Washjet Tip or Washjet Nozzle and, if desired, an appropriate extension for your application. Install on gun with tip or nozzle positioned for your particular spraying needs and tighten.

2. Attach Gunjet to high pressure hose with rating to meet or exceed the maximum operating pressure to be used. When spray gun is being used in a possible explosive or flammable environment, a grounded type hose should be used.

3. Follow your pump and component parts manufacturer's recommendations for operation, but in any case, do not exceed the pressure or temperature of the lowest rated component within the system.

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BEFORE YOU INSTALL AND OPERATE YOUR NEW SIOUX EQUIPMENT, WE SUGGEST THAT YOU READ THIS MANUAL. IT CONTAINS INFORMATION TO ASSIST YOU IN PROVIDING TROUBLE-FREE OPERATION. CHAPTER 1, "INSTALLATION REQUIREMENTS," IS EXTREMELY IMPORTANT! YOU CANNOT HAVE SMOOTH, EFFICIENT OPERATION WITHOUT ADEQUATE ELECTRICALS AT THE MACHINE AND SUFFICIENT WATER SUPPLY.

BASICS OF HOW A HIGH PRESSURE WASHER WORKS

Water enters the float tank by way of the water supply hose. It passes through the float valve which shuts off the water flow when the float tank is full. The pump draws the water through the sediment strainer and out the bottom of the float tank.

The solution tank is filled with water by opening the valve at the water inlet. The desired quantity of Sioux Powder Cold Pressure Wash Detergent is added prior to starting the operation and can be introduced into the system by opening the solution valve.

The water solution is forced by the pump through the hose and gun, discharging through the tip at high pressure.

* *

Our information is based on our experience in the industry since 1939.

We also have incorporated information from outside industrial sources.

This information is as complete as possible and we believe it to be accurate. However, we cannot assume responsibility for any errors, omissions or engineering changes encountered during or after publication of this manual.

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CHAPTER I - INSTALLATION REQUIREMENTS

Section A - ELECTRICAL REQUIREMENTS

1. ADEQUATE ELECTRICALS ARE CRITICAL TO SATISFACTORY OPERATION OF THE EQUIPMENT.

Find the horse power requirements as listed below and provide the recommended electricals for your unit. The electrical manufacturer, in accordance with NEMA Standards, requires these electricals:

Total Horse Power Requirements	230/3/50-60		460/3/50-60	
	Wire Gauge	Circuit Breaker	Wire Gauge	Circuit Breaker
3	12	30	14	12
5	10	40	14	20
7½	8	50	12	30
10	6	50	10	40

INADEQUATE ELECTRICAL CAPACITY WILL RESULT IN ERRATIC OPERATION, UNSCHEDULED SHUTDOWNS DUE TO OVER-LOAD, AND FAILURE OF ELECTRICAL EQUIPMENT DUE TO OVERHEATING.

2. Circuit breakers are the transitional equipment built to provide sufficient power from the main electrical system to the local system and are designed to take the maximum surge of power required to place the equipment in operation. (Note: A circuit breaker is the not same as a fuse.)

The initial surge of power required when starting up the equipment is much greater than the operating current requirements.

3. 90% of the time trouble with the washer is due to inadequate electrical power AT THE EQUIPMENT WHILE UNIT IS OPERATING.

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CHAPTER I - SET-UP PROCEDURE

Section B - WATER SUPPLY-REQUIREMENTS

1. WATER SUPPLY AVAILABLE SHOULD BE 150% OF THE RATING OF THE UNIT AT ALL TIMES, SUFFICIENT TO KEEP WATER IN THE FLOAT TANK DURING OPERATION. (i.e., a unit rated at 2 gallons per minute (GPM) needs a water supply of 3 gallons per minute (GPM).

2. DO NOT ALLOW DEMAND AT OTHER OUTLETS TO STARVE WATER SUPPLY TO UNIT.

3. WATER PRESSURE SHOULD NOT BE EXCESSIVE. If water pressure is over 50 Pounds per square inch (PSI), it may not permit the float valve to seat properly and a pressure reducing valve should be installed. Contact your local utility, heating/plumbing wholesaler or Sioux Steam Cleaner Corporation for assistance.

4. IN SOME AREAS IT IS NECESSARY TO CONDITION THE WATER. Contact your local water conditioning representative for analysis or recommendations.

5. DO NOT USE RUSTY OR SANDY WATER.

6. Water inlet temperature should not exceed 140°F.

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CHAPTER III - OPERATION

Section A - Set-Up Procedure

To Set-up unit for operation, proceed as follows:

1. Unpack and inspect unit for damage in shipment. Tighten fittings as they may have been loosened by vibration during shipment.

2. Each unit has a washer hose, washer gun, and wash tips of different spray angles. Each end of hose is furnished with quick couplers.

3. Attach the washer gun to the high pressure washer hose. Attach wash nozzle later after water tanks, pump, hoses, and wash gun have been cleared of foreign matter.

4. Connect the washer hose to the discharge outlet of the unit.

5. Connect water source, preferable an extra-heavy garden hose, to the float tank inlet. Provide solid brass fittings on garden hose.

6. Connect the unit TO PROPER ELECTRICAL OUTLET, USING ELECTRICAL CORDS OF HEAVY-DUTY GROUNDED WIRE OF SUFFICIENT WIRE SIZE TO ASSURE PROPER VOLTAGE AT THE MACHINE. Alternatively, equipment can be wired in direct by a qualified electrician using appropriate conduit wiring. See "Electrical Requirements," Chapter 1, Section A.

7. The unit is now ready for operation. Refer to Chapter III, Section B, "Operation For High Pressure Washing."

NOTE

BE ABSOLUTELY CERTAIN UNIT HAS ADEQUATE AND GROUNDED ELECTRICALS AT THE MACHINE, AND A STEADY SUPPLY OF WATER BEFORE BEGINNING OPERATION.

Section B - OPERATION FOR HIGH PRESSURE WASHING

1. Turn on water supply to unit. KEEP WATER SUPPLY ON WHENEVER THE UNIT IS OPERATING.

2. Adjust float valve as required to provide CONSTANT SUPPLY OF WATER IN FLOAT TANK. See CHAPTER V, B-1.

3. If detergent solution is desired, fill solution tank 3/4 full with water. Add Sioux Powder Cold Pressure Washer Detergent to Water. See Section E, Chapter III. Mix well.

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CHAPTER III - OPERATION

Section B - OPERATION FOR HIGH PRESSURE WASHING (Cont.)

4. Lock the washer gun in the open position.

5. The unit is now ready to operate and can be activiated by turning pump switch "ON." This switch is located on the front of the machine.

6. Prime pump and piping compartments with water, completely replacing all air in the system until a steady stream of water flows from the washer gun.
   a) Turn pump switch "ON."
   b) Open solution valve partially to purge air from detergent line. In extreme cases it may be necessary to remove hose from washer to get pump to prime. After unit is primed, turn pump switch OFF and attach desired wash nozzle.

7. Keep solution tank strainer covered by water or solution at all times.

8. On initial start-up, use some detergent solution to loosen check valve. While it is not necessary to use detergent solution, it is recommended on initial start-up.

9. Regulate amount of detergent solution required by adjusting solution valve.

10. When ready for rinsing, simply close solution valve.

11. Units with trigger guns allow operator to shut off water flow. As pressure builds up in the unit, the unloader valve opens and by-passes water back to the float tank.

CAUTION

NEVER RUN THE PUMP WITHOUT WATER. DO NOT ALLOW PUMP TO UNLOAD WATER FOR LONG PERIODS OF TIME, AS THIS WILL CAUSE CAVITATION (THE FORMATION OF A VACUUM) CAUSING PUMP TO BIND.

12. For longer life of your unit, we recommend ONLY the use of SIOUX POWDER COLD PRESSURE WASH DETERGENT. See Chapter III, Section D.

Section C - SHUTDOWN PROCEDURE

1. Shut off solution valve.

2. Shut off pump switch.

3. Allow pressure to expire from gun before closing trigger.

4. If unit is to be inoperative for an extended period of time, disconnect water and electrical supply. Also prevent freezing of equipment. See Chpater IV, Section D.

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CHAPTER III
Section D - SIOUX POWDER COLD PRESSURE WASHER DETERGENT

1. Sioux Cold Pressure Washer Detergent is a powdered detergent formulated for Sioux Steam Cleaner Corporation and is the ONLY COMPOUND WE RECOMMEND FOR SIOUX EQUIPMENT because:

(a) Sioux Powerwash is a specially formulated compound designed to completely remove road film, grime, mud and salt deposits without spotting or streaking, and leaves no residue.

(b) Controlled, uniform suds give quick, easy rinsing. Water sheds off thoroughly.

(c) Detergent will remove road film and salt deposits without spotting or streaking.

(d) Sioux Powerwash is a fast acting bio-degradable detergent that has been tested exhaustively in actual conditions and proven superior and economical for all types of Sioux high pressure cold water washers.

(e) Product is safe for painted wood, glass or metal surfaces.

(f) Does not harm rubber.

2. Should you still decide to use another detergent, read the following requirements carefully to help you select a compatible pressure washer cleaning compound.

It must:
(a) BE FULLY DISSOLVABLE.
(b) BE NON FOAMING.
(c) CONTAIN NO ABRASIVES OR ORGANIC MATERIAL.
(d) BE STABLE IN SOLUTION.
(e) CONTAIN NO CORRSIVES.

Section E - CLEANING INSTRUCTIONS

1. Add Sioux Powder Cold Pressure Washer Detergent to water in solution tank. For regular maintenance cleaning, add 1 to 2 cups or 3 to 4 cups for heavy duty cleaning.

2. Without opening the solution valve, wet surface with clear water, starting from the bottom and working up.

3. Open the solution valve and adjust to desired strength of solution to be mixed with water from pump through system. Spray the entire surface generously and allow the solution to remain on the surface for a few minutes, in order to dissolve the soil and break the surface film.

4. Rinse completely with clear water before the solution dries, using a 25^{0}-40^{0} tip. If solution has dried, respray with solution and then rinse with clear water.

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CHAPTER IV - MAINTENANCE/STORAGE

Section A - DAILY MAINTENANCE CHECK LIST

1. Prime water system if necessary.
2. Insure wash tips are clear of obstruction.
3. Verify correct operation pressure.
4. Maintain proper oil level of water pump at inspection plug. See APPENDIX A.
5. Check hose and fittings.
6. Fill solution tank as required.
7. Be sure liquid covers detergent strainer.

Section B - PERIODIC MAINTENANCE REQUIREMENTS

1. Tighten loose fittings and check electrical connections for tightness.
2. Replace check valve when necessary.

Check float and solution tank strainers.

4. Clean algae and build-up in water intake system and suction piping.
5. Inspect pump for leaks and replace wearing parts as required.

Section C - PUMP MOTOR MAINTENANCE

Lubrication of motor should be in accordance with instructions on nameplate or terminal box. If no instructions are supplied, the following guidelines are offered:

1. Open Motors: Clean away dirt around openings with an air jet.
2. Enclosed Motors: Blow away dirt around openings with an air jet.
3. Ball Bearing Motors: Only lubricate if zerk fittings are supplied, and then only every two years. CAUTION: DO NOT OVER-LUBRICATE!!!
4. Sleeve Bearing Motors: Lubricate 10-15 drops of 20-weight non-detergent oil only once every two years. CAUTION: DO NOT OVER-LUBRICATE!!!

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TROUBLESHOOTING CHECK SHEET CHAPTER V, TROUBLESHOOTING, contains information for locating and correcting many of the operating problems that may develop in your unit.

Each of the major problems is followed by a list of causes and remedies which will help you to determine corrective action that might be taken.

We have not listed all malfunctions that may occur, nor all causes and remedies, and you may experience problems other than those listed. Go over the information on this sheet before using the troubleshooting guide and you will probably solve your problem.

FIRST, REVIEW INSTALLATION REQUIREMENTS; CHAPTER I, PAYING PARTICULAR ATTENTION TO ELECTRICAL REQUIREMENTS AS OVER 90% OF PROBLEMS ARE DUE TO INADEQUATE ELECTRICALS AT THE MACHINE WHILE IN OPERATION. Check water supply. USE ONLY SIOUX POWDER COLD PRESSURE WASHER DETERGENT IN SOLUTION TANK.

SECOND, Check following list to help solve the most common problems:

1. Wire size printed on drop cord you are using?___Is it grounded?___
2. Length of drop cord you are using?___
3. Rating of circuit breaker in electrical system you are using?___
4. Rating of electrical line "behind the wall" of outlet you are using?___
5. Gallons per minute of your water supply?___(measure into pail)
6. Is water supply interrupted?___
7. Reading on pressure gauge . WHILE UNIT IS OPERATING WITH WASH TIP ON GUN?___
8. Air purged from solution system?___Air purged from water system?___
9. Are wash tips obstructed?___
10. Have any changes or alterations been made to original unit?___
11. Have you replaced any original parts?___Were they furnished by SIOUX factory?___

If you are not able to solve your problem after CAREFULLY following the above, feel free to call us at the factory, (605)-763-2776 for help. Most problems can be solved on the telephone if you can supply ACCURATE INSTALLATION BACKGROUND & DATA. We will need to know the model number of your unit_____
serial number of your unit_____
and the problem you are experiencing.

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PROBLEM
CAUSE
REMEDY

A. FLOAT TANK OVERFLOWS

1. Float valve needs adjustment or is defective.
   Adjust float valve by loosening nut on side of valve arm. Set ball at least 4" above highest position without hitting tank lid. Replace if defective.

2. Float ball leaks.
   Replace float ball.

3. Water pressure to high.
   Water presssure should not be excessive. Install pressure regulator ahead of machines water inlet if necessary.

B. EXCESSIVELY HIGH, ERRATIC OR FLUCTUATING PRESSURE.

NA 1. Inadequate electrical supply at the machine. LOW VOLTAGE MAY CAUSE PUMP MOTOR TO RUN AT SLOW SPEED. Provide adequate electricals AT THE MACHINE. See Chapter I, Section A.

2. Air leak in water system, pump not primed.
   Check plumbing connections and piping for air leaks. PRIME PUMP AND WATER SYSTEM.

3. Obstruction in nozzle tips, gun or hose.
   Remove and clean wash tips, gun or hose. Delime wash tips if necessary.

4. Float valve upside down or not adjusted properly.
   Orient and adjust, assuring proper seating. Remove foreign matter from under seat and repair or replace as required.

5. Inadequate or interrupted water supply, low pressure on main water line or heavy demand at other outlets.
   Turn on inlet water supply and allow to remain open. Provide adequate water supply to pump.

6. Obstruction in pressure gauge line.
   Remove boths ends of line and clean. ReInstall. Secure fittings.

7. Discharge hoses too small or too long.
   Do not use undersized hose or fittings. Maximum length suggested for proper operation usually 100' for standard ratings.

C. EXCESSIVE VIBRATION AND NOISE.

1. Leaking check valve.
   Repair or replace.

NA 2. Bent motor shaft.
   Replace motor.

3. Improperly aligned pump shaft.
   Replace if necessary being sure to check for proper alignment.

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PROBLEM
CAUSE
REMEDY

C. EXCESSIVE VIBRATION AND NOISE. (continued)

4. Pump damaged or parts worn.
Replace damaged parts and check alignment before operating.

D. LOW PRESSURE.

1. Improper nozzle on wash gun.
Install proper nozzle.

2. Suction line partially blocked or leaks.
Clean suction line. Check for cracks or holes in line. Replace if necessary. Tighten all connections.

3. Pump valves, seats, or rings worn.
Replace worn parts.

4. Clogged inlet strainer.
Clean and reinstall.

5. Inlet line not primed.
Prime pump.

6. Pump air bound, may occur after float tank has run dry or after pump has been removed.
Operate pump until fully primed.

7. Pump worn.
Repair or replace.

E. NOISY WATER PUMP.

1. Insufficient water supply to pump.
Provide adequate water supply.

2. Air leakage in water system, pump not primed.
Check plumbing connections and piping for air leaks. PRIME PUMP AND WATER SYSTEM. Be sure to maintain water in all compartments of the water system. Always bleed air from detergent line.

3. Pulsation dampeners filled with water.
Remove and empty daily. Reinstall.

4. Pump needs lubrication.
Lubricate pump.

5. Pump worn.
Remove and repair pump as required or replace.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

OPERATING INSTRUCTIONS

Proper Installation

These are positive displacement pumps. A pressure relief valve must be installed in the system. Arrange inlet piping so that air cannot be trapped, and make sure all joints are airtight. Inlet piping must have an internal diameter equal to or greater than the internal diameter of the inlet fitting on the pump. We also recommend that a filter be fitted on the suction line to protect pump from foreign matter. Maximum negative pressure is 10 feet water lift; temperature maximum is 165°F.

A properly designed pressure relief mechanism **must** be installed in the discharge piping. Failure to install such relief mechanism could result in personal injury or damage to the pump or system. Pump should not be operated at more than 10% above maximum operating pressure shown on pump. General Pump • U.S. does not assume liability or responsibility for the operation of a customer's high pressure system.

Lubrication

Fill crankcase to dot on oil gauge window per specifications with SAE 20W or 30W non-detergent oil. **Change oil after 50-hour break-in period.** Change oil every three months or at 500 hour intervals thereafter. **Regular lubrication is the easiest, most efficient and least expensive element in preventive maintenance.**

RPM and pressure

Pump operation must be within RPM and pressure specifications. For other applications, consult General Pump • U.S.

Do not pump acids or abrasive fluids with this pump. Contact General Pump • U.S. for additional information on questionable fluids.

Freezing conditions

Pump must be protected from freezing conditions.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

No. 404

Operator's Manual

PACEMAKER 17/20
MATADOR 17/20
MATADOR HS 17/20

ADVANCE

ADVANCE MACHINE COMPANY

INTERNATIONAL HEADQUARTERS, Plymouth, MN 55447-3408
EUROPE, Llantrisant, Pontyclun, Mid-Glamorgan CF7 8YZ Wales, United Kingdom
CANADA, 1295 Crestlawn Drive, Mississauga, Ontario L4W 1A9

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INTRODUCTION

This manual has been prepared to help you get the most from your PACEMAKER/MATADOR. Read it thoroughly before operating the machine.

⚠ SAFETY PRECAUTIONS

⚠WARNING
DO NOT USE THIS MACHINE IN AREAS WHERE FLAMMABLE LIQUIDS OR VAPORS ARE PRESENT.

⚠WARNING
DISCONNECT POWER FROM MACHINE BEFORE ATTEMPTING ANY SERVICE OR MAINTENANCE WORK.

⚠WARNING
DO NOT EXPOSE TO RAIN. STORE INDOORS.

NOTE: For additional information, cautions and warnings, read operator's manual before running machine.

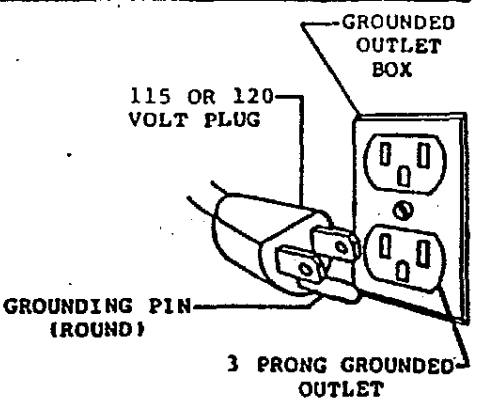
Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

⚠WARNING

THIS MACHINE MUST BE PROPERLY GROUNDED TO PROTECT THE OPERATOR FROM ELECTRICAL SHOCK. READ THE SAFETY INSTRUCTIONS BELOW BEFORE OPERATING THIS MACHINE.

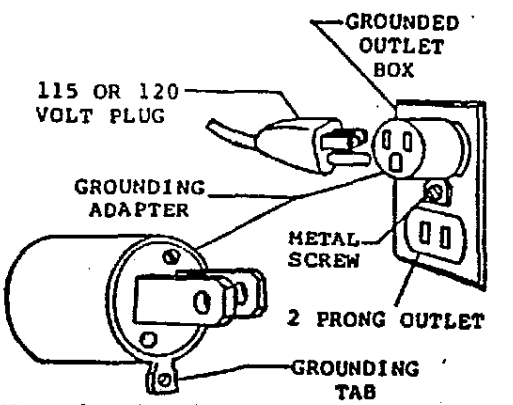
---

115 or 120 VOLT MACHINES HAVE THIS KIND OF 3 PRONG PLUG AT THE END OF A 3 WIRE ELECTRICAL CORD. THE GROUNDING PIN ON THIS PLUG GROUNDS THE MACHINE WHEN IT IS PLUGGED INTO A 3 PRONG OUTLET.



A GROUNDING ADAPTER MUST BE INSTALLED, AS SHOWN HERE, IF ONLY 2 PRONG OUTLETS ARE AVAILABLE. THE OUTLET BOX MUST BE GROUNDED AND THE GROUNDING TAB (OR WIRE) ON THE ADAPTER MUST BE INSTALLED UNDER THE HEAD OF THE SCREW IN THE CENTER OF THE OUTLET COVER. GROUNDING ADAPTERS FOR 115 OR 120 VOLT PLUGS ARE AVAILABLE AT MOST HARDWARE STORES.

NOTE:
GROUNDING ADAPTERS ARE NOT APPROVED FOR USE IN CANADA.



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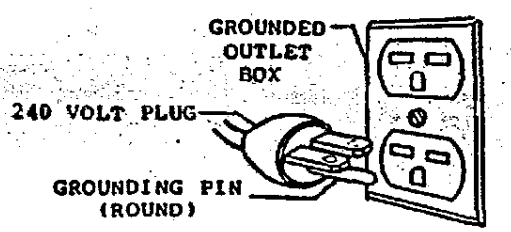
240 VOLT MACHINES HAVE THIS TYPE OF 3 PRONG PLUG AT THE END OF A 3 WIRE ELECTRICAL CORD. THE GROUNDING PIN ON THIS PLUG GROUNDS THE MACHINE WHEN IT IS PLUGGED INTO A 3 PRONG OUTLET AS SHOWN HERE. ADAPTERS ARE NOT AVAILABLE FOR 240 VOLT PLUGS.



REPLACE THE PLUG IF THE GROUNDING PIN IS DAMAGED OR BROKEN.

THE GREEN (OR GREEN AND YELLOW) WIRE IN THE CORD IS THE GROUNDING WIRE. WHEN REPLACING A PLUG, THIS WIRE MUST BE ATTACHED TO THE GROUNDING PIN ONLY.

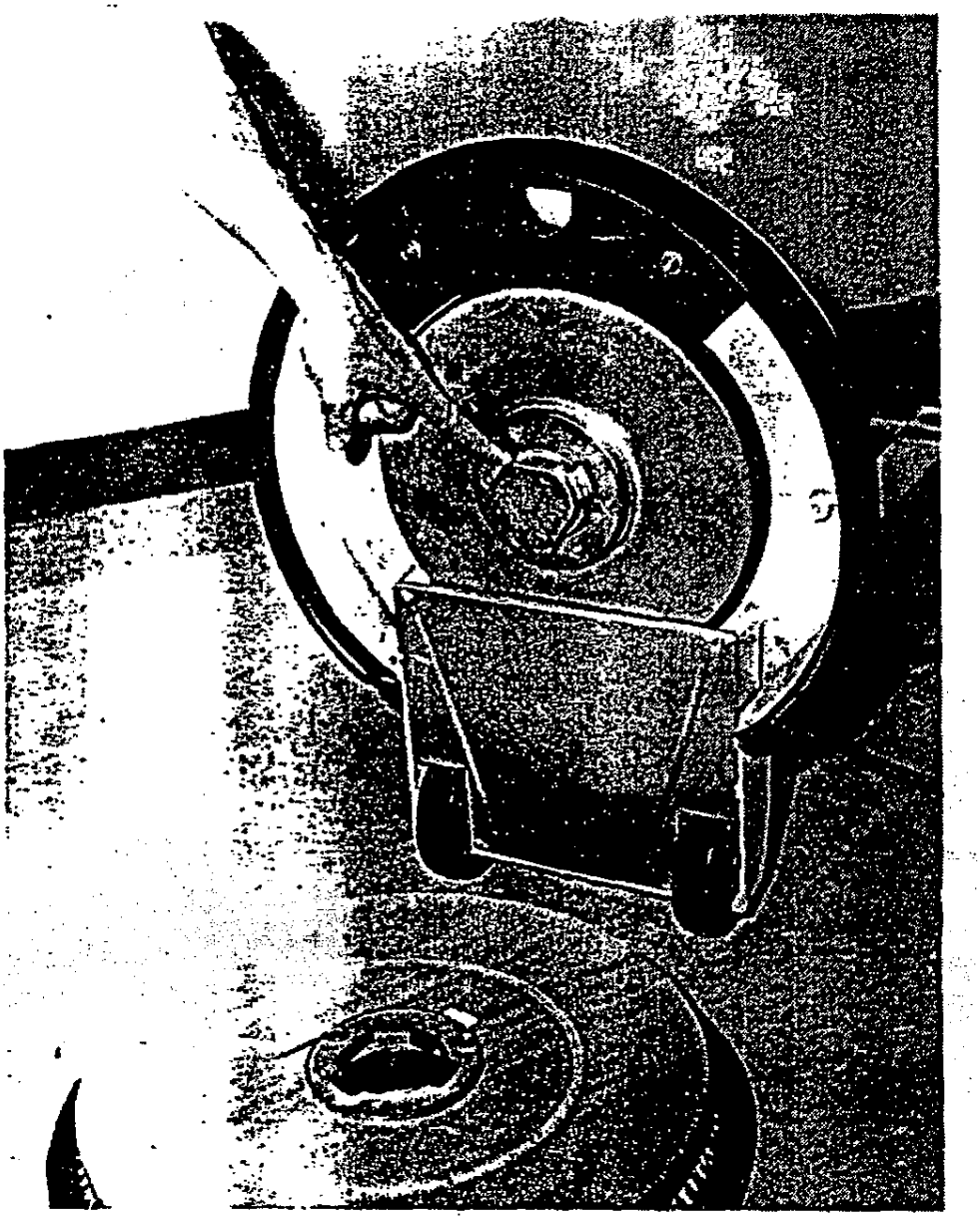
EXTENSION CORDS CONNECTED TO THIS MACHINE SHOULD BE 12 GAUGE, 3 WIRE CORDS WITH 3 PRONG PLUGS AND OUTLETS. DO NOT USE EXTENSION CORDS MORE THAN 50 FT. (15 M) LONG.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

PREPARING THE MACHINE FOR USE

Attaching the Scrub Brush or Pad Holder

Both the scrub brush and pad holder are attached in the same manner. Align lugs with corresponding slots and turn brush or pad holder to lock in place.



Electrical Cable

Unwrap cable and plug into proper outlet as covered in electrical section under warning and cautions.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Spray Buff/Mister (optional)

Fill chemical bottle (2 qts.) with appropriate chemical. Check nozzle on machine base for clogs and ensure proper aiming of mist. Pressurize bottle by pumping hand lever.

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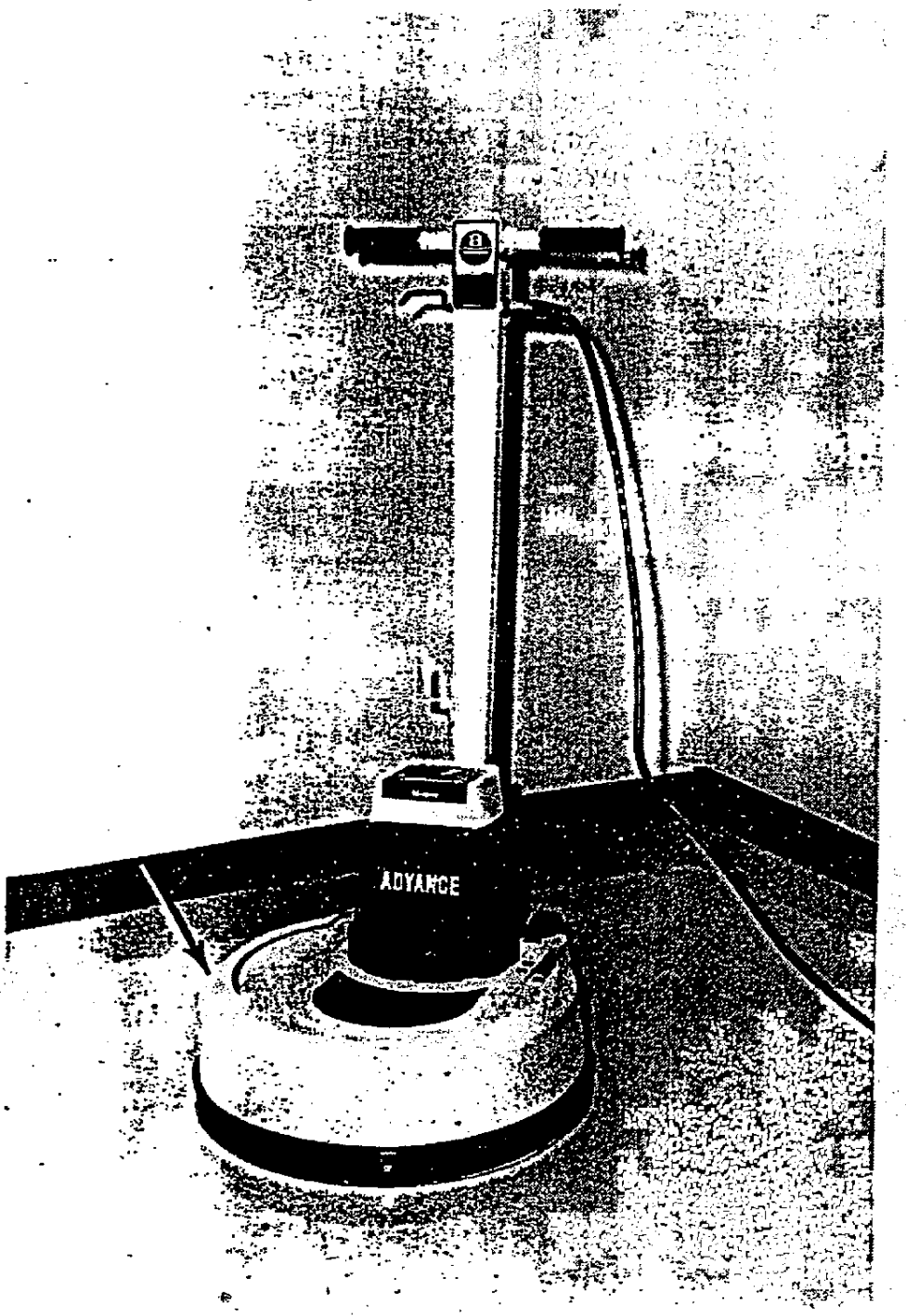
Splash Guard (optional)

Splash guard prevents splashing of chemical onto furniture, baseboards, etc., during wet operation.



Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

OPERATING THE PACEMAKER/MATADOR

With the machine prepared as covered in the previous section, you are ready to operate the Pacemaker/Matador.

1) Handle positioner is located on handle at operator's right. Pull on lever to unlock handle. Adjust handle lever as required and release lever.

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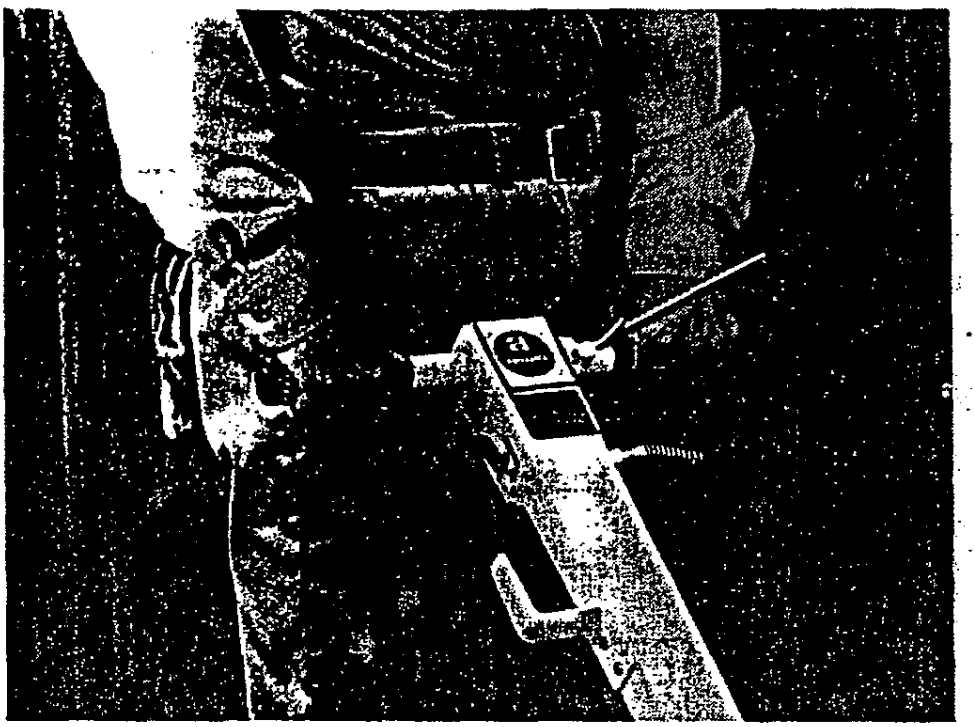
2) With both hands on machine, push handle lock button with forefinger of left hand. Twist grips forward to start motor.



3) Machine will move to the operators right and left as the operating handle is raised and lowered - Raise to go right - Lower to go left.

⚠WARNING
Lateral movement requires only slight raising and lowering - exaggerated movement of handle could cause loss of control.

OPERATING TIPS

1. Work away from plug outlet to keep cord from interfering with machine operation.

2. When spray buffing, periodically check the pad for buildup.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

AFTER USING THE PACEMAKER/MATADOR

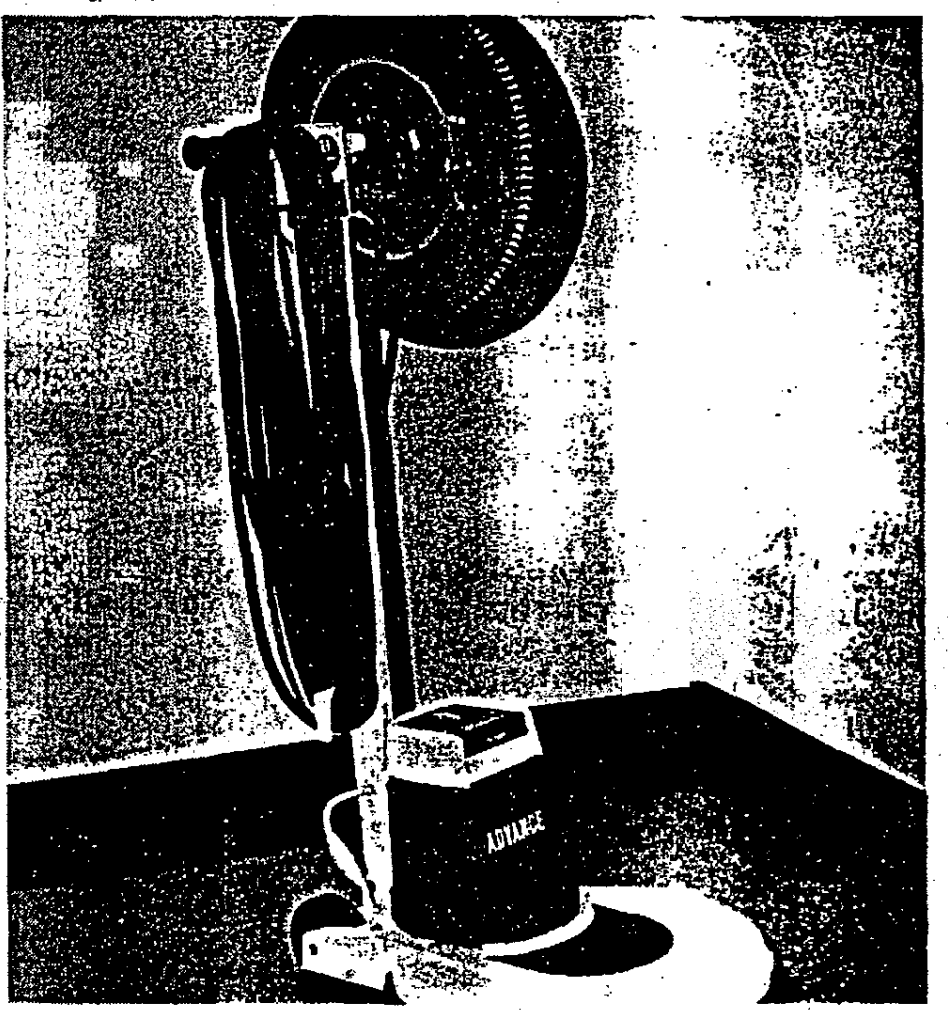
1. Flush spray buff system with warm water.

   Remove pad holder or brush from machine for separate storage. Never store machine with pad holder or brush on machine.

2. Wash scrub brush and store separately.

3. Wrap cable around cord hooks.

4. Wipe entire machine with clean damp cloth - wipe underside of brush housing after wet use.



5. Store with handle locked in upright position.

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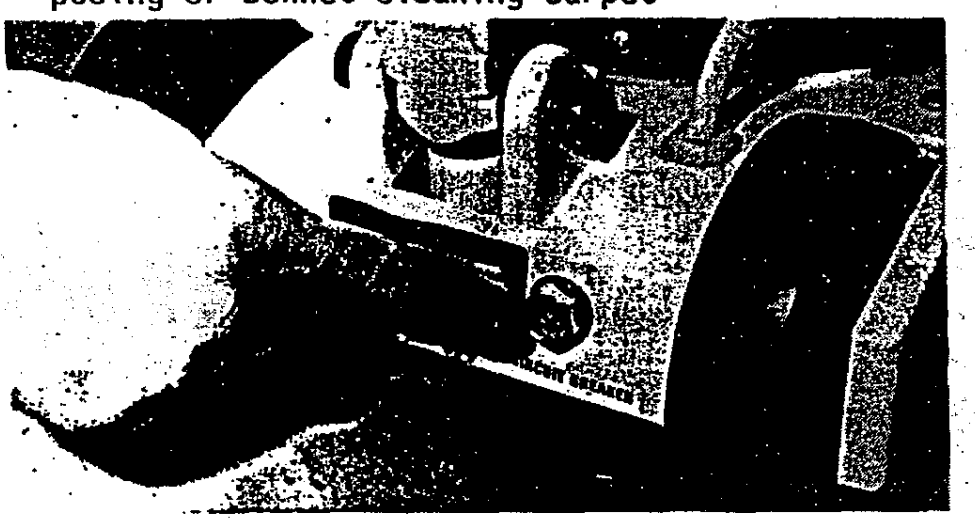
⚠WARNING

Disconnect power from machine before attempting any service or mainteance work.

Circuit Breaker (High Speed Matador) - Designed to protect motor from damage by overload condition. Normally, tripping of circuit breaker is caused by one or more of the following conditions:

- Loaded pad when spray cleaning, scrubbing or polishing
- Excessive use of material when spray cleaning
- Too-aggressive pad for operation
- Use of other than soft-touch brush for carpet shampooing.
- Too little, or absence of, solution when shampooing or bonnet cleaning carpet



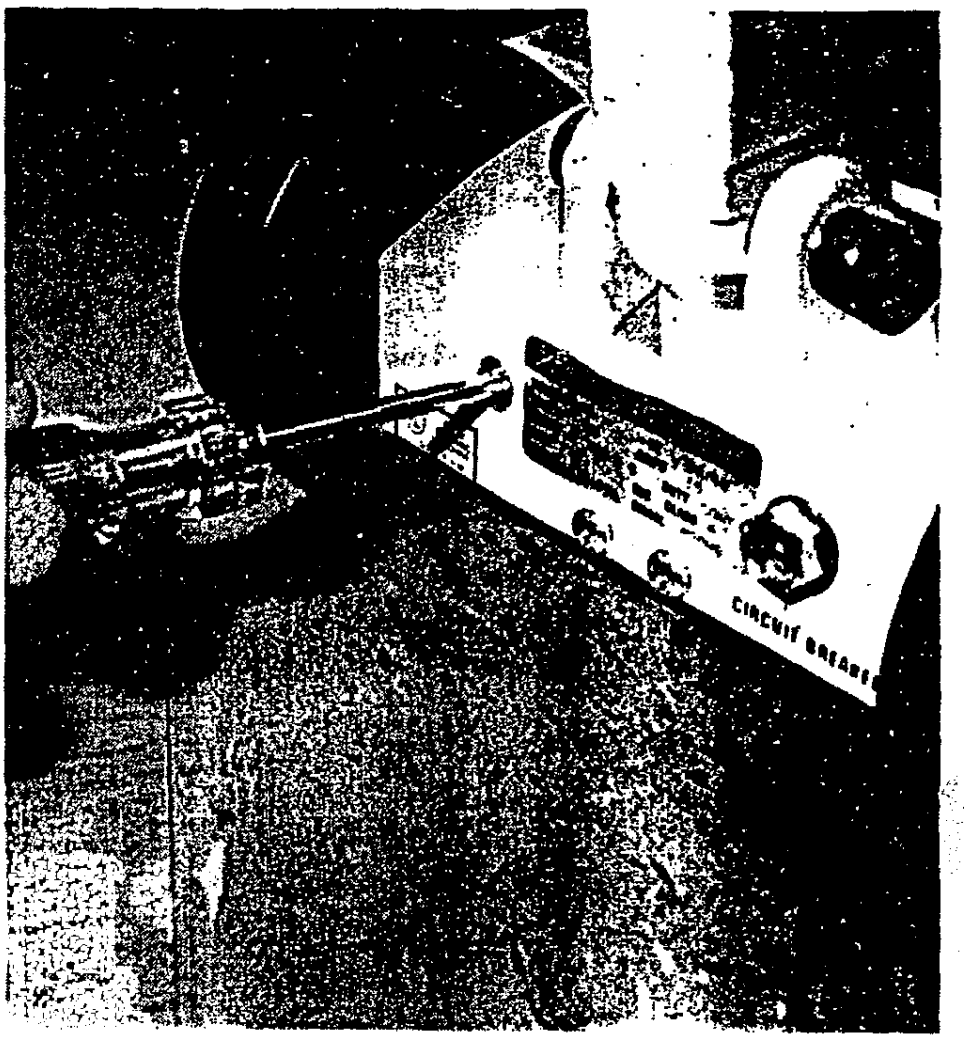
When cause of circuit breaker tripping is determined, remedy and re-set external button by pushing in to position where it doesn't return.

NOTE: If button does not stay pushed in, allow time for cooling and try again.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Drive Belt (Matador)** - This belt requires no maintenance under normal circumstances, however, after a few weeks it may become "seated" and loosen slightly. If this should happen and the belt should slip, it will become apparent by a noise which resembles that of a dry bearing.

To tighten belt, turn phillips head screwdriver in bolt at rear, in increments of one-half turns until noise is eliminated.



Should belt require replacement, follow directions printed on underside of plate beneath machine. This operation is best performed by your AUTHORIZED ADVANCE SERVICING DISTRIBUTOR, and for certain, Advance replacement parts are recommended.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

JOB SAFETY ANALYSIS

PARK 500 CODE:_____

Department: Production Page No: 1 of 1

DESCRIPTION OF OPERATION
Use of Floor Buffer

JOB LOCATION

TASKS	HAZARDS	SAFETY PRECAUTIONS
Use of Floor Buffer	ELECTRICAL SHOCK	1. Always use ground fault interrupter with the floor buffer. 2. Inspect electrical outlet for loose wires, burn traces, etc. before plugging in buffer. 3. Always check buffer cords for loose or frayed wires or torn insulation. 4. Do not leave buffer on and unattended.
	GENERAL INJURY - Torso, Head, Limbs	1. Use caution as to cord placement so it does not become a tripping hazard to others in the area. 2. Use caution signs to alert passerby to cord strung out across floor when necessary. 3. When hosing down floor after using buffer, use caution so as not to wet down people passing through the area. 4. Roll up water hose immediately after use.

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Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000

Carbon Motor Brushes (High Speed Matador) - Will require replacement after approximately 700 hours of operation. Contact your AUTHORIZED FACTORY SERVICING DISTRIBUTOR for this service.

Unplug the cable and wrap it around cord storage hooks.

Store machine in safe place with handle upright for minimum storage space use.

CLEAN AND INSPECT FOR DAMAGE the entire machine and all accessories before storing.

TROUBLE SHOOTING TIPS

SWIRLS ON FLOOR AFTER SCRUBBING

Floor not clean, working too fast.
Incorrect solution.
Area not properly pre-swept.
Improper pads or brushes.

SWIRLS ON FLOOR AFTER DRY BUFFING

Working too fast.
Finish too soft.
Area not properly pre-swept.
Improper pads or brushes.

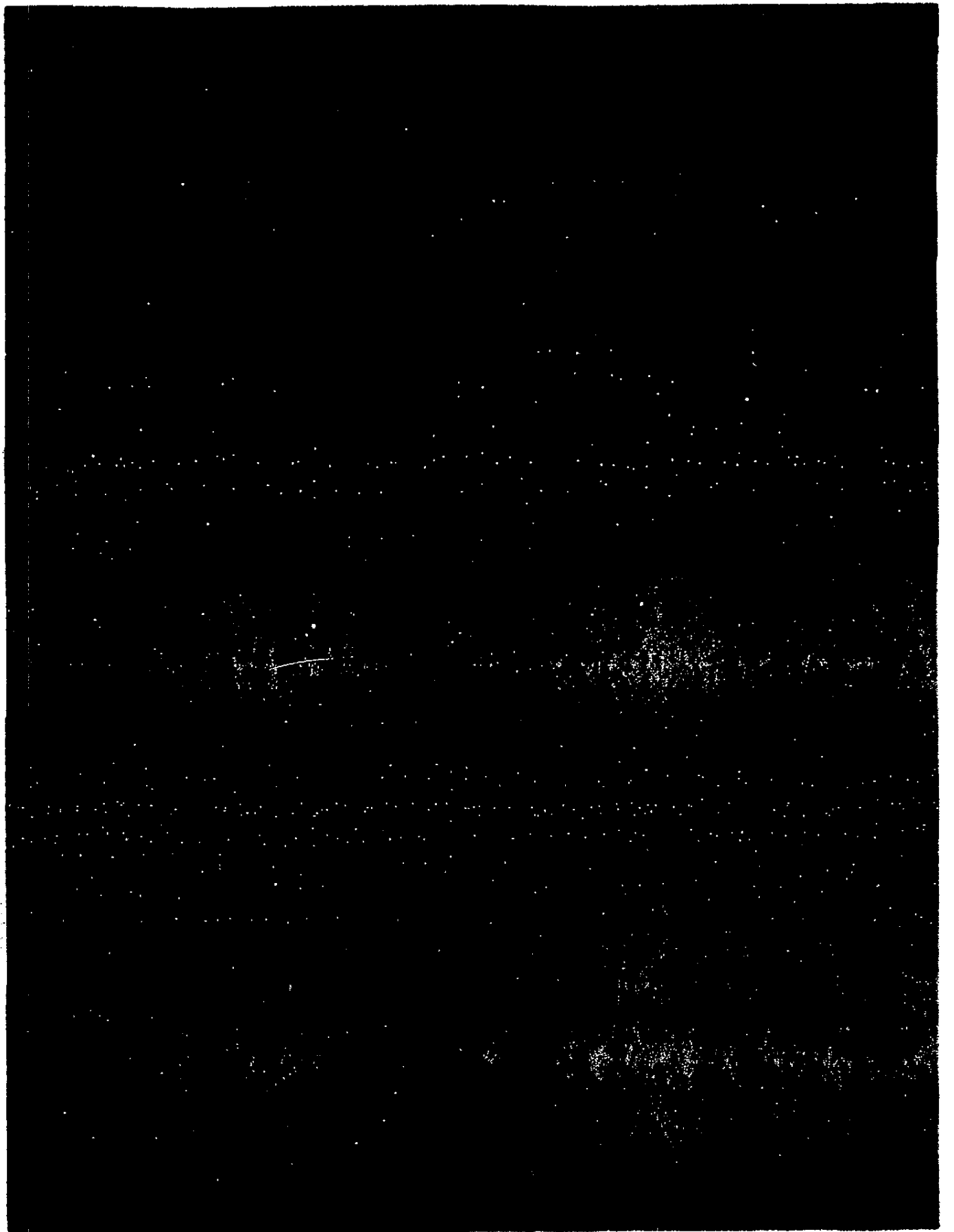
CIRCLES ON FLOOR

Machine standing still with brush running.

FLOOR FINISH REMOVED

Improper pad...too aggressive.
Solution too strong.

Source: https://www.industrydocuments.ucsf.edu/docs/qzmx0000



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